The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 401.—Vol. XIII.] LONDON: SATURDAY, APRIL 29, 1843. [Price 6d.

PARK END COLLIERY, Forest of Dean, Gloucestershire.—Messrs. TOPLIS and SON respectfully announce that the SALE of the ABOVE PROPERTY is POSTPONED till Friday, the 28th July next.
London, 16, St. Paul's Churchyard, April 24.

Periodical Sale.—Two Hundred Forfeited Shares in the Sark Mining Company.

MESSRS. SHUTTLEWORTH and SONS are instructed by the Directors to include in their PERIODICAL SALE of Reversionary Interests, &c., appointed to take place at the Mart, on Friday, May 5, at Twelve o'clock, in lots, pursuant to a general meeting of the shareholders, held the 30th of March, 1843, TWO HUNDRED SHARES IN THE SARK MINING COMPANY, warranted free from any call or liability whatever up to the present time, and liable only for such calls as shall hereafter be voted at a general meeting of shareholders.

The Sark Mines are amply provided with steam-engines and other machinery for extended operations. They were last inspected by F. N. Johnson, Esq., of Hatton-garden, and Capt. N. Vivian, of Camborne, from either of whom information relative to their present state and prospects may be obtained, and every facility and assistance for inspecting and examining them will be rendered by the managing agent, Capt. Prince, on the mines.

Further particulars may be obtained by application to the Chairman of the Company, Guernsey; of J. F. Christy, Esq., Stangate Glass-Works, London; at the Mart; and of Messrs. Shuttleworth and Sons, 28, Poultry.

VALUABLE MINE SHARES, in Flintshire.—TO BE SOLD, BY AUCTION, by Mr. JAMES WILLIAMS, at the White Horse Hotel, in the town of Holywell, in the county of Flint, on Wednesday, the 10th of May, at Two o'clock in the afternoon, subject to such conditions as shall then be produced, and in the following lots:—

LOT I.

THREE SIXTEENTH SHARES OF THE TERFYN LEVEL LEAD MINE, situate at the east end of, and adjoining, the celebrated Talargoch Mine, in the county of Flint. A strong vein of ore has already been discovered, by means of a level, but that not being deep enough to unwater the mine effectually, a second, and deeper, level is now driving. This mine is in one of the best mineral districts, and is esteemed a most promising adventure. The ground leased to the company comprises upwards of 400 acres.

LOT II.

FIVE TWENTY-NINTH SHARES OF THE TALACRE LEAD MINE, which is a continuation of the above, and is worked by means of an old level, which has been recently opened to one of the veins producing ore. Another level is now in progress, and has already been driven upwards of 600 yards, with every prospect of cutting another vein in a short time. This mine is considered a very valuable one, and there is every reason to believe it will very soon be in profitable operation. The ground leased to this company comprises upwards of 800 acres.

LOT III.

FOUR SIXTEENTHS OF THE BRYNFORD-HALL LEAD MINE, on the west end of, and adjoining, the well-known Milwr Mine, near Holywell.

LOT IV.

FIFTY-EIGHT FIVE-TWELFTHS OF 472 SHARES OF THE HOLYWELL LEVEL MINE—near Holywell, aforesaid.

Further particulars may be obtained on application to Thomas Harrison, Esq., Salthactwyd, near Holywell, or Messrs. Roberts and Son, solicitors, in Mold.

ELIGIBLE INVESTMENT IN FLINTSHIRE.—SHORTLY WILL BE OFFERED FOR SALE, BY PUBLIC AUCTION, unless in the meantime disposed of by private treaty, of which due notice will be given, all that ONE UNDIVIDED THIRD PART, or SHARE, of and in all those valuable, productive, and well-known COLLIERIES, called the EWLOE HALL, MARE HAY, LODGE CROFT, and NORTHOP HALL COLLIERIES, in the parishes of Hawarden and Northop, in the county of Flint; and also of and in all the powerful ENGINES and MACHINERY, RAILWAYS, VESSELS, OVERPAID ROYALTIES, COALS PURCHASED, but yet unworked, BOOK DEBTS, and other STOCK and MATERIALS thereunto belonging. These collieries, which are in full and profitable operation, are held, subject to easy royalties, under different leases, for various long terms, from Sir S. E. Glynne, Bart., Admiral Dundas, and others, in all of which many years are yet to come and unexpired, and the lands comprised in them embrace a very large extent of country.

The beds of coal range in thickness from twelve feet to one yard, are of excellent quality, and are almost without limit as to quantity. The recent produce has been after the rate of 50,000 tons per annum, or thereabouts, but a much larger quantity might easily be raised.

The situation of the collieries is admirable, having good turnpike-roads, connecting them with the city of Chester and all the neighbouring towns in the principality; they also lie within an easy distance of the River Dee, and, by means of recently made and well appointed railways, are connected with excellent shipping wharfs at Connah's Quay and the Queen's Ferry, on the banks of that river, whence coals are shipped to Chester, Ireland, the Isle of Man, and along the English and Welsh coasts. At Connah's Quay Wharf vessels drawing thirteen feet of water can take in their cargoes at any state of the tide.

By a recent survey and valuation of the machinery, stock, &c., the capital alone employed in these great works amount, exclusive of the beneficial interest in the many valuable leases under which the same are carried on, to nearly £50,000.—Owing to their magnitude and extent, as well as to afford better opportunities for investment in these prosperous and rapidly improving undertakings, it is intended to divide the said share into four equal parts, or shares, of one-twelfth each, and so to offer the same in four different lots.

The present sale is ordered by the trustees of the late William Rigby, Esq., to enable them to fulfil certain trusts which now devolve upon them. The only other proprietors with the said trustees are John Rigby, Esq., of Sandon-terrace, Liverpool, and the representatives of the late William Hancock, Esq., of Hawarden, by whom the works are now carried on, under the well-known firm of Rigbys and Hancocks.

Every other information relative to the collieries may be had on application to Mr. Staley, surveyor and manager, at the Ewloe Office, Hawarden, Flintshire; and for any other particulars, apply to Mr. William Williamson, jun., solicitor, Holywell, Flintshire.

TO CAPITALISTS.—OPPORTUNITY OF MOST ADVANTAGEOUS INVESTMENT.—The ADVERTISER is desirous of POINTING OUT, to persons of capital and enterprise, a most EXCELLENT SITUATION, in the county of Durham, where there is a MANOR, divided into four townships, extending over 3000 acres, and bounded by a navigable river, all belonging to an ecclesiastical corporate body (excepting 200 or 300 acres of private freehold), and in which there is already established an excellent port, where coals are daily shipped, and through which two railways pass—the one to the port just named, and the other to one of the first harbours in the kingdom, with excellent docks for shipping coals, distant only seven or eight miles—thus making the transit done a mere bagatelle, compared with what many collieries have to pay at present—viz., from twenty to thirty miles of railway. Three or four collieries have been recently sunk, where COAL of first-rate quality is working, and others are in progress, each in circular approximation of from seven to ten miles of the manor, and leavings have been commenced in the adjoining parish, and three miles off. In short, the advertiser is convinced, that such a SPLENDID OPPORTUNITY for INVESTMENT of CAPITAL only requires to be MADE KNOWN to the MINING CAPITALIST to ensure his serious attention.—Any such who may be desirous of the required information may obtain it on addressing letters to "A. B. L.," Post-office, Darlington, Durham.

ON SALE, VALUABLE COPPER MINES, situated in the British West Indies.—The PROPERTY consists of nearly ONE THOUSAND ACRES of LAND, about a fifth of which is freehold, and the remainder held under advantageous leases. Numerous lodes have been discovered on the property, but only one worked, on which a shaft to the depth of forty-five fathoms has been sunk, and several short levels driven, from which upwards of 200 tons of ore have been raised, yielding, on an average, more than 20 per cent. of copper. The lode in the lowest level (forty fathoms from adit) is very large and productive, and worth about £50 per fathom, with every prospect of improvement in depth.

There are on the property convenient houses for agents, miners, and labourers, and all other necessary buildings, together with a steam-engine, pit-work, pumps, coal, iron, timber, and other materials requisite for carrying on the works for some time.—The mines are situated near the sea, and the expenses of shipping the ore and land carriage do not exceed 2s. per ton. The whole of the property will be sold, or, if more agreeable to purchasers, the present proprietors will retain some interest in it.

Further information may be obtained upon application to G. W. Cotton, Esq., Bickes'-court, Lime-street, London.

SEYSSEL ASPHALTE COMPANY (Claridge's Patent).—Established March, 1838.—The extensive patronage which this valuable MINERAL production continues to receive from the most eminent ARCHITECTS and ENGINEERS in this country and abroad, distinguishes it from the numerous fallacious compositions which its reputation gave rise to, but which having been found very inferior to the original material, most of them have ceased to be used. Its merits being well known, it is only necessary to refer to a few of the public works already executed and now in progress. On the London and Greenwich Railway, and joint stations, *London-bridge*, 420,000 superficial feet of arches; thousand feet at the Great Western, Birmingham, Midland Counties, South Western, Brighton, Blackwall, and other railways; covering of arches at the South Metropolitan Gas-Works, Vauxhall Cheesehouse; the covering of the commission at the Penny Bank Battery, Liverpool; the pavement in Whitehall; the carriage-drives at the Horse Guards, and at the entrance to the park by Apsley House; the cells and other apartments of the new prisons at Shrewsbury; several works at the stations on the Dublin and Kingstown Railway; and many other public and private works in different parts of England, Ireland, and Scotland.—A series of prices, with books of testimonials, can at all times be had at the company's depôt, where specimens of its various applications may be seen.

J. FARRELL, Secretary.

Bayonne Asphalte Depôt, Stangate, near Westminster-bridge, March, 1843.

COLLIERY, IRONSTONE, IRON-WORK, and FOUNDRY, in Clackmannanshire.—TO BE LET, with entry at the term of Whitsunday next, the VALUABLE COAL-FIELD of NORTH SAUCHIE, near Alloa, at present in the possession of the Devon Iron Company. This coal has been wrought for the last forty years, in connection with the Iron-Works at Devon, and is particularly well adapted for the manufacture of iron. The present workings are confined to two seams—the upper five-foot and nine foot; but there is an extensive field of the lower five-foot seam to work, and the splint coal in the property is untouched, both of which could be obtained by sinking down the existing pits at an inconsiderable expense; besides these, there are other workable seams in the coal-field still unwrought. The machinery, utensils, and workmen's houses will be delivered over to the tenant. If required by the tenant offering for the North Sauchie Colliery, arrangements could be made with the Devon Iron Company for obtaining possession at the term of Whitsunday of the ironstone, and of the iron-work and foundry, at present occupied by them. In this case, either a lease or a permanent freeright will be given to the ground on which the iron-works are situated, and the leases of the coal and ironstone will be granted for such a number of years as may be agreed on. The ironstone supplies a considerable quantity of the material used by the present company, and the works being well situated for the making of iron, as well as for foundry purposes, could be considerably extended.

For full particulars apply to Robert Jameson, Esq., at Alloa; or to James L. Mitchell, W.S., 8, Randolph Cliff—the latter of whom will show the working plans of the coal and ironstone.—Edinburgh, Jan. 14.

MINING IN CARGAL MANOR—PARTIES desirous of OBTAINING SETTS in the ABOVE MANOR, may apply to Capt. Puckey, the lord's agent, Fowey Consols Mine, Lostwithiel, Cornwall.

MR. JOHN KYMER'S PATENT FURNACE, whereby an ECONOMICAL APPLICATION of FUEL is EFFECTED, with RAPID EVAPORATION, and WITHOUT SMOKE.—A furnace, on this construction, is erected, and at work, at Messrs. Taddy and Co.'s, 45, Minories, where it may be seen, by cards, to be had on application to Mr. J. M. Sunley, 71, Cornhill, or Mr. H. English, *Mining Journal* Office, 26, Fleet-street.

BISSOE-BRIDGE MINING ASSOCIATION.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders of this association will be held at the George and Vulture Tavern, St. Michael's-alley, Cornhill, London, on Tuesday, the 9th day of May next, at Twelve o'clock precisely, to receive a Report preparatory to liquidating and winding up the affairs of the association, unless the shareholders present at such meeting shall agree to advance a further small sum for prosecuting the undertaking.—Dated this 28th day of April, 1843.

By order of the directors,
BAXENDALE, TATHAM, UPTON, and JOHNSON.
7, Great Winchester-street.

CORNUBIAN MINING COMPANY.—Notice is hereby given, that the ANNUAL GENERAL MEETING of the shareholders of this company will be held at 44, Finsbury-square, London, on Tuesday, the 30th day of May next, at Two o'clock precisely.—April 15.

MEXICAN COMPANY.—The directors hereby give notice, that the ANNUAL GENERAL MEETING of proprietors will be held at the office of the company on Thursday, the 4th of May next, at Two o'clock precisely, in conformity with the Deed of Constitution of the company.

32, Great Winchester-street, London, April 22. J. M. MAUDE, Secretary.

REAL DEL MONTE MINING COMPANY.—At a Meeting of the proprietors, held this day, the RESOLUTIONS for ARRANGING the LOANS of 1827 and 1828, passed at a meeting held on the 10th inst., were unanimously CONFIRMED.

By order of the directors,
2, Duke-street, Adelphi, April 27. JOHN PHILLIPS, Secretary.

N.B.—The holders of Loan Notes who have not already sent their names and addresses to the office, are requested to do so as soon as possible.

TO MINERALOGISTS and OTHERS.—TO BE DISPOSED OF, a CHOICE COLLECTION OF MINERALS, the property of a gentleman, deceased, collected in different parts of Europe, South America, and Mexico.—May be viewed, between the hours of Eleven and Four, at Messrs. Hollett Brothers and Co., 9, Austin-friars, Old Broad-street, City.

MINERALS, SHELLS, FOSSILS, &c.—FOR SALE, a very EXTENSIVE, CHOICE, and HIGHLY INTERESTING COLLECTION, in two cabinets, of fifty-three drawers; comprising many exceedingly curious relics in fossil woods, shells, &c., besides an infinity of minerals.—For cards to view, and to treat for the purchase, apply personally at 56, Cotton-street, Poplar, near Blackwall; or, by letter, to Mr. J. T. Cooly (late with Mr. George Robins), London.

THE IRON TRADE—TO CAPITALISTS.—A GENTLEMAN having a VALUABLE PATENT TO TAKE OUT, where a great quantity of iron (manufactured) will be consumed, will be READY TO TREAT with any PARTY who has influence and capital at command.—Parties addressing to "H. B." (post paid), *Mining Journal*, will be duly answered.

None but principals will be treated with.

WANTED, A PARTNER, with a small capital, in an ENGINEERING ESTABLISHMENT, in the centre of a coal-field, and within a short distance of a shipping port. One who could render assistance in the management would be preferred.—Apply to Mr. English, office of the *Mining Journal*, 26, Fleet-street, London, of whom every particular may be obtained, and reference given to the principal.

INVESTMENT.—Mr. ENGLISH is authorised to negociate for the INTEREST of ONE-THIRD in a PROPERTY, which not only pays full 10 per cent. on the capital employed at the present moment, but holds out advantages to the extent of threefold its present returns. The sum of £2000 will be required, merely for floating capital, on the advance of which on interest, to the extent of one-third, will be at once secured to the property, on which nearly £10,000 has been already expended.—For particulars apply personally to Mr. English, 26, Fleet-street, London.

SALE OF FREEHOLD PROPERTY.—TO BE SOLD, a FREEHOLD PROPERTY, in a desirable locality, with rental of £150 per annum, secured by lease, on which a large sum has been expended in the erection of extensive buildings, used for foundry and engineering purposes.—Address to "W. K. C.," care of Mr. H. English, 26, Fleet-street.

AERIAL TRANSIT.—The ADVERTISER having, for several years, considered that mechanical flight is quite practicable, CONTRIVED, in his own mind, A PLAN, which, he thinks, cannot but succeed, if properly carried out, but not having sufficient funds for the purpose, is WILLING TO DISCLOSE HIS IDEAS, and GIVE UP HALF THE VALUE of the discovery and the profit to any person who may feel disposed to ADVANCE the SUMS necessary for taking out a PATENT and TRYING THE EXPERIMENT.—Address to "R. H. R.," care of Mr. R. R. Cornelius, chemist and druggist, East Teignmouth.

N.B.—As the advertiser has only formed the plan of the machine, and not the moving power, he would prefer treating with a practical mechanic.

BLUE LIAS LIME AND CEMENT.—A DEPOT is OPENED for the SALE of the ABOVE ARTICLES, from Mr. GREAVES'S CELEBRATED QUARRIES, Southam, Warwickshire, and the canals have offered such reductions in their tonnage, as will allow of its being SOLD at the SAME PRICE AS LIME FROM DORKING, to which it is very far superior for all foundations, sewers, water, and manure work in general. The CEMENT is the very best that can be used for stuccoing, being the colour, and setting as hard as Portland stone, and taking more sand than any other.—No lime is equal to the Blue Lias for concreting.

1, Blue Lias Wharf, Paddington.

N.B.—Blue stone, and blue and white diamond paving, for ornamental flagging, from the same quarries.

RUSSIAN STEEL IRON—"OLD SABLE"—C C N D.—The UNDERSIGNED being the SOLE AGENTS of the Messrs. DE DEMIDOFF in England, the above MARK OF IRON can only be OBTAINED through them.

CHARLES GRAHAM & Co., 26, King's Arms-yard, London.
GRAHAM BROTHERS, 76, High-street, Hull.

THE PATENT SAFETY FUSE, FOR BLASTING ROCKS IN MINES, QUARRIES, AND FOR SUBMARINE OPERATIONS.—This article affords the safest, cheapest, and most expeditious mode of effecting this very hazardous operation. From many testimonies in its favour with which the Manufacturers have been favoured from every part of the kingdom, they extract the following letter, recently received from John Taylor, Esq., F.R.S., &c., &c.:—

"I am very glad to hear that my recommendations have been of any service to you. They have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this."

Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVEY, Camborne, Cornwall.

FOR SALE, by PRIVATE CONTRACT, on the ROSEWALL-HILL MINE, one and a half mile from St. Ives, in Cornwall, THREE STEAM-ENGINES, all new only three years ago; No. 1, a 36-inch cylinder PUMPING-ENGINE, 9-feet stroke in the cylinder and 7-feet in the pump, with all wood work complete, including doors and windows and first piece of connection-rod; No. 2, a STAMPING-ENGINE, on Sims's combined cylinder principle—4-horse power. The consumption of coals with this engine never exceeded 2½ lbs. per horse power per hour; No. 3, a WINDING-ENGINE, 20-inch, double power, Boulton and Watt engine—6-feet stroke, with winding apparatus (iron) complete. The whole of these engines are on the most modern construction, made of the best material and workmanship; are only one and a half mile from a good shipping port, and may be had very cheap.—Application to be made to Mr. Nicholas Tredinick, of Camborne, to Mr. James Sims, engineer, at Redruth; or to Mr. English, 26, Fleet-street, London.
Redruth, Dec. 3.

BOLTON AND PRESTON RAILWAY COMPANY.

TENDERS FOR LOANS ON MORTGAGE.—The directors of this company are prepared, under powers of their Acts of Parliament, to RECEIVE TENDERS for the LOAN of MONEY, in sums of not less than £200, and for terms of three, five, seven, or ten years, and to GRANT MORTGAGES of the said undertaking, and of the rates, tolls, or monies arising therefrom, as securities for such loans, bearing interest at the rate of 5 per cent. per annum. INTEREST WARRANTS, for the whole term for which the loan shall be made, will be delivered to the lenders along with the mortgages, and be made payable half-yearly, at the company's bankers in London, or Bolton, as may be preferred. The tenders are to express the sums and the term of years for which the same are proposed to be lent, and to be addressed to the secretary, at the company's office, Bolton.

By order of the board of directors,
Bolton, August 30. PETER SINCLAIR, Secretary.

EASTERN COUNTIES RAILWAY.—ALTERATION of SUNDAY TRAINS.—Notice is hereby given, that on and after the 30th of April instant, the TRAINS on SUNDAYS will RUN as follow, calling at the intermediate stations:—

DOWN TRAINS.

From London to Colchester—Quarter past Eight (*), Morning; and Three, and Five o'clock, Afternoon.

From London to Brentwood—Quarter past Nine, and Ten, Morning; Two, Afternoon; and Quarter before Eight, Evening.

UP TRAINS.

From Colchester to London—Quarter past Eight (*), Morning; Quarter before Two, and Quarter before Four o'clock, Afternoon.

From Brentwood to London—Quarter past Nine, Morning; Two, Afternoon; and Seven, and Quarter before Eight, Evening.

(*) These trains do not stop at Mile-end or Forest-gate Stations.

Offices, Shoreditch Station, April 22.

LONDON AND BIRMINGHAM RAILWAY.—CONTRACT FOR WORKS.—The directors of the London and Birmingham Railway Company will meet at the office, Euston Station, on Friday, the 12th day of May next, at Twelve o'clock, to RECEIVE TENDERS for the CONTRACTS for the following WORKS:—

1. To make the Warwick and Leamington Branch Railway, from the Coventry Station of the London and Birmingham Railway to Kenilworth Common.

2. To make the Warwick and Leamington Branch Railway, from Kenilworth Common to the terminus near Leamington.

Draft of the contract, with plans and specifications of the works, will be ready for inspection at the resident engineer's office, Camden-town, London, on and after May 1.—Printed forms of tenders may be had at the resident engineer's office, and no other will be attended to.

The tenders must be delivered sealed, addressed to the secretary, and endorsed, "Tender for Works," at the office, Euston Station, on or before Ten o'clock, a.m. of the 12th of May, and parties tendering (or others duly authorised by them) must attend in person at the time of meeting.

The parties whose tenders are accepted will be required to enter into a bond, with two sureties, for the due performance of their contracts, in a penalty not less than 10 per cent. on the gross sum contracted for, and the names of the proposed sureties are to be specified in the tender.

The directors will not bind themselves to accept the lowest offer.

The contractor, if he require it, will be furnished by the company with a counterpart of his contract, at his own expense.

By order,
Office, Euston Station, April 12. RICHARD CREED, Secretary.

MIDLAND COUNTIES RAILWAY.—The directors are READY to RECEIVE SEVENTEEN THOUSAND POUNDS on SECURITY of their LOAN NOTES, for three years, at interest after the rate of 4 per cent. per annum, to be paid half-yearly.

By order, J. F. BELL, Secretary.
Leicester, March 16.

SHEFFIELD, ASHTON-UNDER-LYNE, & MANCHESTER RAILWAY.—TENDERS FOR LOANS.—The directors are prepared to GRANT MORTGAGES, under the powers of their Act of Parliament, FOR LOANS OF MONEY, in sums of not less than £200 each, and for periods of three, five, or seven years, at the option of the lender.—Interest, at the rate of 5 per cent. per annum, will be paid half-yearly, for which interest warrants will be given for the period agreed on, payable at the company's bankers in London, Manchester, or Sheffield.

Further information may be obtained at the company's offices in Manchester or Sheffield; at the office of Messrs. Parker and Smith, collectors, Sheffield; Messrs. Bagshaw and Stevenson, Manchester; or Messrs. Johnson, Sim, and Wetherell, Temple, London.

By order,
Manchester, Feb. 15. J. PLATFORD, Secretary.

SHEFFIELD, ASHTON-UNDER-LYNE, & MANCHESTER RAILWAY.—EXTENSION OF TIME.—CONTRACT FOR SUMMIT TUNNEL WORKS.—The directors of this company are prepared to RECEIVE TENDERS for the COMPLETION of the western portion of the SUMMIT TUNNEL, near Woodhead, on the eleven first of railway.—Plans, sections, specifications, and draft forms of contract, may be seen at the Railway Office, 15, Piccadilly, Manchester, on and after Monday, the 10th inst. Every facility will be given to parties wishing to inspect the shafts and drift-ways previous to tendering, and Mr. Purdon, the assistant engineer of the company, will be in attendance on the works, to accompany contractors and others, and will give all the necessary information respecting strata through which the drift-ways have been formed.

Sealed tenders, addressed to the secretary, to be sent to the Office, 15, Piccadilly, Manchester, on or before the 10th May, or at the Norfolk Arms, Glossop, before One o'clock in the afternoon of Wednesday, the 17th May, after which time no tender will be received.—Printed forms of tender may be obtained on application to the secretary, and no others will be attended to.

Parties tendering, or some other person duly authorised by them, will be required to be in attendance at the Norfolk Arms on the above day and time of letting.

By order, J. PLATFORD, Secretary.

BANKS'S PATENT RAILWAY WHEELS.—Messrs. SWAYNE and BOVILL having taken a LICENSE, from Messrs. Banks and Petrie, for USING the ABOVE PATENT in the London District, all orders are requested to be addressed to them, at their works, Millwall, Poplar, where all information may be acquired.

City Office, 19, Aldermanbury, April 29.

IMPORTANT TO INVENTORS AND PATENTEES.—Mr. J. R. HILL, having been engaged as a CIVIL and PRACTICAL ENGINEER, during the last twenty years, in erecting designs and carrying into effect important works, machinery, &c., for some of the most eminent engineers of the day, has COMBINED therewith the PRACTICE OF PATENT AGENCY, in obtaining patents, entering caveats, making drawings and specifications, and transacting every department of patent business.—J. R. H. begs to suggest to inventors and others the great advantages arising from confidentially CONSULTING and EMPLOYING ONE whose knowledge has been acquired from PRACTICAL EXPERIENCE IN THE USEFUL ARTS, instead of committing the scientific part of their business to those who, from want of mechanical knowledge, have, in many cases, obtained patents which have subsequently proved void in law, from imperfect descriptions, inaccuracies, or want of originality—those involving a serious loss to the projectors.—Books and records of all patents investigated, and every kind of information furnished.—Designs and drawings, surveys, reports, estimates, arbitrations, and valuations of all descriptions of works, executed with ability and dispatch.

26, Chancery-lane.

TO INVENTORS AND PATENTEES.—Messrs. ROBERTSON and CO., PATENT SOLICITORS (of which firm Mr. J. C. Robertson, the Editor of the *Mechanics' Magazine*, from its commencement, in 1823, is principal partner), undertake the PROCURATION OF PATENTS for England, Scotland, Ireland, and all foreign countries, and the transaction generally of all business relating to patents.—Specifications drawn or revised, disclaimers, and memorandums of alteration prepared and enrolled; caveats entered and oppositions conducted, cancellations and prolongations of patents solicited, searches made for patents, and copies or abstracts supplied, advice on cases submitted, &c.—Messrs. Robertson and Co. possess the ONLY COMPLETE REGISTRY OF PATENTS EXTANT, commencing A.D. 1617 (in James I.), and regularly continued down to the present time. Intending patentees supplied gratis with printed instructions, on application, either personally or by letter.—Messrs. Robertson and Co. also undertake the REGISTRATION OF DESIGNS, for ornamenting articles of manufacture under the Act of 5 and 6 Vict., cap. c.—Just published, price 1s., the ACTS 5 and 6 Vict., cap. 65, to Consolidate and Amend the Laws relating to COPYRIGHT OF DESIGNS for Ornamenting Articles of Manufacture; with explanatory notes, practical directions, table of fees and forms, by Messrs. J. C. Robertson and Co.—Mechanical drawings of every description executed by competent draftsmen.

PATENT OFFICE, 166, FLEET-STREET.

FLUVIATILE DEPOSIT IN THE VALLEY OF THE REA.

In the course of the formation of a junction branch of the Warwick and Birmingham Canal, from the Tyseley Canal, at Salford Bridge, to join the Warwick Canal near the Camp Hill, Leads, while excavating that part of the line which passes through the valley of the Rea, near the village of Saltley, one mile and a half north-east of Birmingham, the workmen, at a depth varying from four to six feet, came to a deposit of carbonaceous matter, consisting of a compact earthy peat, embedding branches and trunks of trees, in a prostrate position, chiefly oak, hazel, and willow; some of the former from six to nine feet in length. The bed usually rests upon a dark coloured gravel, which owes its colour to the presence of vegetable matter. The majority of the pebbles in the gravel are evidently from the lower beds of the quartzose sandstone of the Lickey Hill, but there is a rather remarkable preponderance of very white, and often crystalline, quartz boulders, which gives the dark gravel a singular appearance in a newly made section. At the base of the vegetable stratum, and immediately on this gravel, there is usually a gritty deposit, formed almost exclusively of angular grains of the white quartz; and pebbles of the same are sparingly scattered through the peaty mass. A few chalk flints are also found in the gravel, and fragments of débris, from the neighbouring coal field. But the bed in which the drift coal is found is much more recent than the marl on which it is deposited; in one of the upper layers were found the sole of a shoe, and pieces of leather, pierced for a lace or shoe-string. This coal drift may be traced from the spot shown in the section across the valley, to near Nechells, where a good section of it may be seen; it appears to have resulted from some great flood, possibly within the last century, which swept through the valley, carrying off coal and other materials from the yards of the manufactories and houses, as it passed through Deritend and the lower part of Digbeth. The carbonaceous stratum is not uniformly deposited over the black gravel; it appears to occupy insulated patches, often in small basins; nor is the quantity accumulated greater near the present course of the river; it probably arose, partly from some spots of the ancient surface being more densely covered with vegetation than others, and partly from plants having been accumulated in the lowest levels, by the drifting of currents of water. But one instance has been noticed in this deposit of a trunk in situ, erect, and this was upon the gritty deposit, and the roots of which appeared to penetrate into the gravelly substratum. The gravel and peaty deposit are covered by a stratum of nearly clay, varying in thickness from six inches to four feet six inches; often nearly as white as pipe-clay, more frequently a pale pink, with deeply coloured bands, orange, ochrey, and brick red; on this, in some places, reposes a very thin stratum of gravel, and over this a pale red mud, gradually passing upwards into a spongey vegetable soil. The whole of these deposits resting on the usual drift of the neighbourhood, which covers the new red sandstone formation. In the lower parts of the vegetable stratum abundance of hazel nuts are found, which do not appear to differ in any respect from the common species (*corylus avellana*), now so plentiful in the midland counties; and occasionally acorns and hawthorn berries; and, in sinking through it for a culvert, running nearly parallel with the line of canal, a fine antler of a stag was discovered, at a spot 150 yards from the river. It apparently belonged to a species identical with the existing red deer (*cervus elaphus*, of Linnæus), formerly an abundant in the forests of Great Britain; but now much less common than the smaller species, or fallow deer (the *cervus dama* of Linnæus), the horns of which, instead of being round, like those of the stag, are broad and palmated. The length of the fossil antler is one foot seven inches, and the circumference at the base eight and a half inches, while the brow antler measures nine inches in length, and five and half inches in circumference; the horn is broken off at the extremity; when complete, it was probably more than two feet long. Another, and much less perfect, antler of a stag was found on the line near Nechell's Green. It had evidently been removed by the carts, from near the spot where the first was found, with other materials to fill up the lower part of the valley, near Nechells. At a spot a little on the other side of the viaduct (erected by the Derby Railway Company) across the valley, while sinking through the black gravel, the horn of an ox was found; it measures one foot eight inches in length, and is nearly a foot in circumference at the base. The horn must have been a very large one, as the fossil is the bony nucleus only, the hard smooth horny sheath being lost, in consequence of which it would be hazardous to attempt to identify it with any of the fossil species described by Cuvier, Woods, or others.

EXPERIMENTAL RESEARCHES IN ELECTRICITY.

On the Electricity Evolved by the Friction of Water and Steam against other Bodies.—The object of the experiments related in this paper is, to trace the source of the electricity which accompanies the issue of steam of high pressure from the vessels in which it is contained. By means of a suitable apparatus, which the author describes and delineates, he found that electricity is never excited by the passage of pure steam, and is manifested only when water is at the same time present; and hence he concludes, that it is altogether the effect of the friction of globules of water against the sides of the opening, or against the substances opposed to its passage, as the water is rapidly moved onwards by the current of steam. Accordingly it was found to be increased in quantity by increasing the pressure and impelling force of the steam. The immediate effect of this friction was, in all cases, to render the steam or water positive, and the solids, of whatever nature they might be, negative. In certain circumstances, however, as when a wire is placed in the current of steam, at some distance from the orifice whence it has issued, the solid exhibits the positive electricity already acquired by the steam, and on which it is then merely the recipient and the conductor. In like manner, the results may be greatly modified by the shape, the nature, and the temperature of the passages through which the steam is forced. Heat, by preventing the condensation of the steam into water, likewise prevents the evolution of electricity, which again speedily appears by cooling the passages, so as to restore the water which is necessary for the production of that effect. The phenomena of the evolution of electricity in these circumstances is dependent also on the quality of the fluid in motion, more especially in relation to its conducting power. Water will not excite electricity unless it be pure; the addition to it of any soluble salt, or acid, even in minute quantity, is sufficient to destroy this property. The addition of oil of turpentine, on the other hand, occasions the development of electricity of an opposite kind to that which is excited by water; and this the author explains by the particles, or minute globules, of the water having each received a coating of oil in the form of a thin film, so that the friction takes place only between that external film and the solids, along the surface of which the globules are carried. A similar, but a more permanent, effect is produced by the presence of olive-oil, which is not, like oil of turpentine, subject to rapid dissipation. Similar results were obtained when a stream of compressed air was substituted for steam in these experiments. When moisture was present, the solid exhibited negative, and the stream of air positive electricity; but when the air was perfectly dry, no electricity of any kind was apparent. The author concludes with an account of some experiments in which dry powders of various kinds were placed in the current of air; the results differed according to the nature of the substances employed, and other circumstances.—Dr. Faraday: From *Royal Institution*.

History of China, Pictorial and Descriptive. In monthly parts. Dean and Co., London.

This work, which is announced for completion in seven monthly parts, is exceedingly well got up, and, from its novelty, promises to become popular. Confined, however, as it is the space devoted to a history of China, even admitting the limited information we possess of that country, it can only be looked upon as an introduction, and, as such, is highly deserving of commendation. The plates which illustrate the work are well executed, and render it a pleasing, as well as instructive, companion or introduction to other works treating on the same subject. It is hardly necessary to add that the matter is not of a science, as far as the publication has yet progressed, to admit of extract which would be of interest to our readers, although we hope, on an early occasion, to be in possession of some interesting information touching on the mineral products of China, which, we are given to understand, have already attracted the attention of more than one "barbarian." The low price at which the publication is issued should alone ensure a large sale, not to advert to its merits.

On the Ventilation of Gas and Gas Burners.—Professor Faraday read a paper on this subject at the Royal Institution, on the 7th inst. After some general remarks on the philosophy of lighting apartments, lighthouses, &c., and the component parts of the products given off from oil and gas during combustion, the paper described a mode adopted of ventilating the interior of lighthouses, so as to carry off all vaporous products, and prevent the clouding of the glass by condensation on it, at the same time preventing any injury to the flame from external gusts of wind, or otherwise. The new process for ventilating the argand burner, and for which the professor's brother has taken out a patent, was then explained. It consists of a glass cylinder, longer and larger than the chimney glass, and placed over it, the outer cylinder being covered with a sheet of zinc; the lower portion, which forms the bottom for these cylinders, is entirely close, except where it communicates with a pipe terminating outside the apartment, and then so as to admit of the flame in the usual way, below the chimney; but all the water, in a state of vapour, carbonaceous soot, &c., which is formed during combustion, passes up the chimney, downwards between the two cylinders, and is finally conveyed through the tube to the atmosphere. The advantages to be derived from this mode of ventilation will be appreciated by persons having valuable goods exposed for sale in shop windows, which are seriously injured by exposure to the gas vapours, as silk mercers, jewellers, &c., and it will be of equal utility in apartments containing gilt frames, or metal ornaments, &c., while the agreeable purity of the air for respiration is of the utmost importance. The Library of the Athenæum Club House has already been fitted up with standard burners on this principle; and a handsome one of three lights hung in the business room of this excellent, which, by the economy of burning, forward a striking exemplification of the effects of the plan.

TALACRE COAL AND IRON COMPANY.

COURT OF ALDERMEN—APRIL 22.

The committee of Aldermen met this day to proceed in the investigation of the charges against Mr. Alderman Thomas Wood, in relation to his conduct while solicitor and officer of the Talacre Coal and Iron Company.—Mr. W. H. Ashurst (the present solicitor to the company) was present in consequence of a summons he had received.

The Chairman (Mr. Ald. Brown), after the minutes of the last day's proceedings were read, made some observation to Mr. Ashurst, which we could not catch.—Mr. Ashurst said he attended the committee in consequence of their request, and was ready to answer any questions, but he objected to place himself in a position that would render him liable to Mr. Wood. He did not object to produce any book, but he declined to give evidence unless Mr. Ald. T. Wood wished it, especially as the committee had no power to protect him in his evidence. He said, also (as we understood), that he was anxious not to be called upon to give evidence on the narrow question raised in the affidavits, which he believed the committee proceeded upon, for they did not exhibit the whole case.—The Chairman said they did not limit their inquiry to those affidavits, and Mr. Ald. Thomas Wood (who was attended by Mr. Wire, the solicitor, and Mr. Peter Laurie, the barrister), at the request of the committee, said he had no objection to the inquiry, and Mr. Ashurst would, therefore, pursue his own course.

Mr. Ashurst was then examined by the Chairman.—He produced the share, transfer, and two minute books. The original minute book he had not got, and had never seen it, or a copy of it. The book he had, commenced on the 18th of October, 1839, and he had a copy of the Dublin minutes from 1st June, 1839, but they were not all.—Mr. Ald. T. Wood intimated that Mr. Chappelow had them.—Mr. Ashurst believed all Mr. Chappelow ever had he had then; when he became concerned, he saw the importance of that first minute book, and applied to the secretary and Mr. Wood for it, but Mr. Weston never replied, and Ald. Wood said he had not seen it. He then offered a reward for it.—Sir P. Laurie said he should have been glad to have had the advertisement before the committee.—Mr. Ashurst had advertised in several papers, but without success, and would procure the advertisement. It appeared to him, from Mr. Wood's affidavit, that he had a copy of it. The book he had, commenced with an entry of, 18th October, 1839, being a meeting of directors—present, Wood and others—when Wood was appointed chairman, Weston and others directors, Bagnall engineer, &c., &c. It also contained a great many other entries, which were signed by Mr. Wood—for instance, minutes authorising Mr. Davis to prepare a report to the shareholders on 6th July, 1840; the acceptance of that report; the entry of a meeting in June, 1840, expressing that Mr. Wood had read his report, stating that there had been gross negligence on the part of Mr. Bagnall, and so on.—The Chairman referred Mr. Ashurst to the minutes of the meeting of 6th July, 1840.—Mr. Ashurst produced them, and also the drafts of the report, revised by Mr. Wood. He also produced the resolution signed by Mr. Wood,—for instance, minutes authorising the delivery out of a large number of the free shares to the following effect:—"That 72,400*l.* of the paid-up shares be delivered forthwith to Messrs. Wood and others, in part payment for the Talacre property."—The share books were next referred to, and some discussion arose, as to whether, in Mr. Chappelow's affidavit, they had been properly quoted.—Mr. Ashurst pointed out that it was not stated that copies were sent out; the result of the two books, which was the material point, was stated; and, after some discussion, Mr. Ald. Wilson (or Mr. Ald. Gibbs, we forget which) asked if those two books did show the division of shares, as stated.—Mr. Ashurst said yes.—The Chairman: Do you find 7000*l.* to Weston, 7000*l.* to Davis, 4000*l.* to Wood, 3000*l.* to Bagnall, &c.?—Mr. Ashurst: Yes.—The books were then handed in.

Mr. Ald. T. Wood, and the two legal gentlemen assisting him, declared he (Ald. Wood) had never taken the shares entered to him. Did Mr. Ashurst find he had ever signed for them?—Mr. Ashurst could only speak from the books; he knew nothing of the matter originally; the book was not signed by Mr. Wood for these free shares, but they were entered to him.—Several of the aldermen intimated their opinion (as we gathered) that that was immaterial; there were the shares entered and recorded.—Mr. Ashurst, in answer to further questions, stated, in substance, that the shares had, at all events, been taken from the company, and by Mr. Ald. T. Wood. The deed, prepared by him, took them from the company, and he produced a paper, which he said was signed by Mr. Ald. T. Wood, ordering the shares to be delivered.—The paper was then handed in, and Mr. Ald. Wilson and the chairman ordered it to be read. It was as follows:—

London, January 21, 1840.

Gentlemen,—We request you will deliver to George F. Baker 740 fifty pounds shares in your company, being part of the amount of the purchase of the Talacre property.

Addressed to the directors of the Talacre Coal and Iron Company, and signed by Thomas Wood, Warwick Weston, John Davis, William Hodges, J. E. Hyndman, and others.

Mr. Ashurst said there was another document on the fly leaf, which was a receipt by Baker for the amount, thus showing they had been taken from the company.—Mr. Ald. Gibbs: What was the value of the shares?—Mr. Ashurst: They were 50*l.* each, declared to be paid up, and interest was to be paid on them. The amount named in the resolution would be 72,400*l.*—Many other entries in the books were then referred to, when Mr. Ald. T. Wood said he drew particular attention to the fact, that, at the first meeting, many proprietors were present, including Mr. Slaughter, Mr. Wild, Mr. Shaw, &c., whereas it was alleged he presided at hole and corner meetings, &c.; and, in answer to a question from the chairman, he said only two calls had been made.

After some time occupied with other entries, Mr. Ald. Farebrother said that he thought they could shorten the matter, by having nothing to do with the speculation, further than merely entertaining the question, whether the parties, in the early part of 1839, alleged that the coal sent to Dublin was Talacre coal, and did they get that coal from the Bryn colliery; because, if so, there had been (as we understood) a fraud committed, and if any one shareholder had, after that time, taken a single share, he had been deceived and defrauded, but, if Mr. Ald. Wood showed to the contrary, there was then no end to their inquiry.—Mr. Ald. Wilson, after some further conversation, which arose in consequence of this suggestion, said he perceived that Mr. Ashurst had in his hands some invoices, and he wished to know what they were, and if they affected the subject.—Mr. Ashurst said he held in his hands an invoice of Lewson and Baker, made out to the Talacre Company for coal, supplied to them from the Bryn colliery (the Bryn colliery and being the property of the company), and two checks paying for these coals.—The Chairman: Whose checks are they?—Mr. Ashurst: They are signed by Mr. Ald. Thomas Wood, and Mr. Weston, and countersigned by the secretary.

Mr. Bradfield (Mr. Ashurst's clerk, who was present with that gentleman), upon being questioned by Sir Peter Laurie, said he knew the Pluton and Bryn properties. The Pluton property was the Talacre mine, and was a separate and distinct mine from the Bryn. The Bryn was not the Talacre mine; that property was held under a distinct lease.—Mr. Ald. T. Wood declared this to be without foundation. The whole of the property was the Talacre mine—the Bryn, as well as the Pluton and Marsh; all had been procured by the company in March, 1839, and, though Lewsons refused to allow the company to have the Bryn until 1840, there was nothing wrong, for they had always had a right to it, and did ultimately get it.—Mr. Bradfield persisted that he was correct. He appealed to the papers, which he said showed that the property was in different townships, and the usual term "Talacre" did not apply to the Bryn, and which, at the time spoken of, belonged to Messrs. Peckton and Co.—Mr. Ald. T. Wood warmly declared that both were in Pluton.—Mr. Bradfield said that the Pluton lease was in Pluton and Gwaynyr township, and the Bryn was not in that township, but in the township of Pluton and Aston.—Mr. Ashurst said that his clerk had been on the property four or five times, but the committee would easily arrive at the truth from Mr. Slaughter, who held all the papers. Mr. Bradfield, however, had just put into his hands Mr. Wood's bill of costs, as confirming his (Mr. Bradfield's) recollection, and he there found this entry, "instructions for assignment of lease of mines in Pluton and Aston, known as the Bryn mine."—Mr. Ald. Farebrother requested to see the deed.—Mr. Ald. Brown said the mines mentioned in it were in Pluton and Gwaynyr.—Mr. Bradfield: Yes, and the Bryn cannot be included.—Mr. Ald. Wood said that each was conveyed by a separate deed also.—Mr. Ashurst: Then, Mr. Ald. T. Wood, how can the recital in that deed be true?—Mr. Ald. T. Wood said, "I shall not argue the question with you, Mr. Ashurst (*order, order*).—The Chairman said Mr. Ashurst had come there at their invitations, and had behaved most temperately, and was entitled to an answer.—Mr. Ald. Wood declared all round he explained; the Bryn had been conveyed by a separate deed to the trustees, so that the company got it.—Mr. Ashurst: But they paid them, additional for it. It was bought for 30000*l.*, and then sold to the company at 72000*l.*—After some further conversation, the committee adjourned for the present, the short hand writer's notes being ordered to be printed.

Bristol and Gloucester Railway—New Branch.—At a special meeting of the shareholders, held at the White Lion Hotel, Bristol, on Wednesday, the 29th instant, for the purpose of making arrangements with the Great Western Company for the construction of that portion of the Cheltenham and Great Western Union Railway which connects it with the city of Gloucester (about eight miles), and other arrangements relative to the traffic, George Jones, Esq., in the chair, Mr. Fletcher (the secretary) read the report, which was very long, and entered into a history of the railway from the commencement, and the altered circumstances, in consequence of the formation of other lines, and stated that, by the proposed measure, an outlay of 30,000*l.* would be prevented, and also an annual expense, by the joint use of one station.—Mr. Fripp proposed an amendment, which, however, was negatived, and the original motion carried by a large majority.

METALLIFEROUS DISTRICT OF CARDIGANSHIRE—No. II.

The surface of the ground rises from a series of hills of 200 or 300 feet in height, on the margin of the sea, gradually increasing in size, until they reach the highest mountain range, which is from 2500 to 2900 feet in height. This ground is broken through by two rivers, the Rheidol and the Ystwyth, which crosses it in deep ravines, evidently broken, to which the sides bear evidence, and seem as if they would fit each other if they were brought together. The general channels of these rivers are east and west, often varying from this direction, and thereby affording facility for examination of the veins and other subterraneous phenomena in their line. On the Ystwyth the most western mine is Grogwinion. On the right bank, a mile and a half further eastward, are the Lisburne Mines, and three miles still further eastward is Cwmystwyth; other mines are on the banks, but as these are the principal starting points of different ranges of mines, it will not be necessary to advert to them here. The whole of the rock forming the mining district has its divisional planes northward and southward, which planes are more or less perpendicular, and on the bearing of these divisions or joints, if the Lisburne Mines be taken as the starting point to the southward (on a line magnetic north and south), will be found the mines of Glogfach and Esgar Mwyn, and to the northward a series of fifteen mines in as many miles, taking in almost all the great mines of the county, and running into the sea near Talybort. The other two ranges mentioned under the lines of Cwmystwyth and Grogwinion have not been so extensively developed—the only mines are the Cwmystwyth range being Grug-goch, Nanty-erie, and Esgar-hir. This line runs to the eastward of the other mines, its direction being about a few degrees west of true north, and eventually will, no doubt, afford a number of extensive mines, as the veins are larger, and better filled with metal, than those in the lower hills, although the latter have been more sought after, probably from their being more sheltered in winter, and nearer the shipping ports.

[We regret that the avocations of our correspondent preclude him from entering more fully on the subject, but, as we are led to expect an extended paper will follow, treating more generally on the vast district to which his attention is directed, we give insertion to the preceding notes.]

NEW COMPANIES.

[In noticing such new adventures as may from time to time be brought before the public, it is hardly necessary to observe, that we must not be considered in any way to admit the correctness of the information conveyed (which, unfortunately, too often requires much cautious investigation), but merely lay such particulars before our readers as we may glean from prospectuses, advertisements, &c., to call their attention to, and make them acquainted with, the subject.]

CULLENTRAGH PARK LEAD MINING COMPANY.

This company is being formed for the purpose of working a lead mine on the estate of Cullentragh Park, in Glenmalure, in the county of Wicklow, the property of the Earl of Meath. The Glenmalure lead mine, in the townland of Ballinafinchogue, adjoins, and the same veins intersect this sett, and has been worked almost without intermission for eighty years, with great success. The water-power of the River Avonby, immediately adjoining, is more than adequate to put the mine down to a requisite depth, as well as for stamping, crushing, &c.; it is proposed to divide the undertaking into 1000 shares of 5*l.* each, with an immediate call of 30*s.* per share—630 to be disposed of for a working capital, and 170, considered as paid, to be reserved as a compensation for the mine and the various expenses; it is to be managed by a committee of three, chosen from the shareholders, and the department in London and at the works to be conducted with the strictest economy.

CORNWALL COUNTY AND GENERAL TIN AND COPPER MINING ASSOCIATION.

This company is formed for working tin and copper mines in Cornwall; they have already engaged the Wheal St. Aubyn tin and copper mine, in the parish of Crowan; it is situated within five miles of the principal harbours, where all materials necessary for mining may be obtained at the cheapest rate and at a trifling expense of carriage. Some most productive mines are in the immediate neighbourhood—Carn Brea, Wheal Vor, Godolphin, Binner Downs, Cook's Kitchen, &c., and some of the richest lodes pass through it. Several tin and copper lodes have been discovered in the sett; an adit of 200 fathoms has been driven, and a considerable sum already laid out in sinking shafts, &c. &c. The mine has been inspected by Captains Mark Read, of Wheal Vor, W. Sincock, of Treleigh Consols, John James, of Gurnett's Head, and S. Hosken, of Wheal Chance, all of whose reports are strongly in its favour, and recommend the company to lose no time in setting to work. The company's agents are now in treaty for other mines in the county, hitherto only partially worked. The capital is to be 100,000*l.*, in 10,000 shares of 10*l.* each, deposit 1*l.* per share—the shareholders to possess the unusual privilege of electing the directors from their own body, at a meeting to be convened, when all the officers will be appointed. No further call will be made till the mines are in full operation, and no shareholder will be liable beyond the extent of his share.—[Qy. Ed. M. J.]

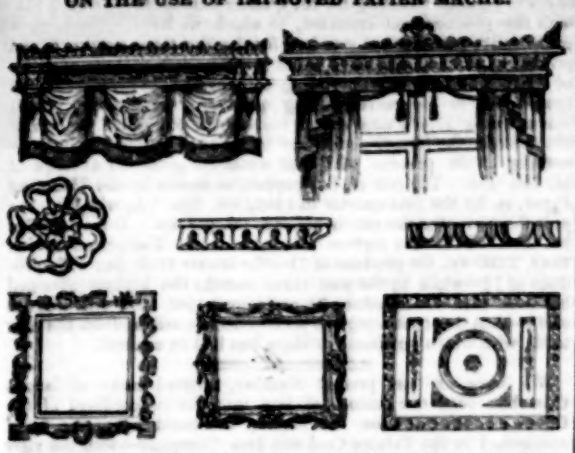
Mr. Brunel.—It is with the sincerest regret we have to announce that the valuable life of this talented engineer is placed in imminent danger by an accident, arising out of an amiable wish to amuse the children of a friend. The father and Mr. Brunel pretended, by sleight of hand, to pass money from the mouth to the ear, and vice versâ, when Mr. Brunel, placing a half sovereign in his mouth, it unfortunately slipped into the trachea, where it stuck, and every effort to remove it from its dangerous lodgment, up to this time, has proved ineffectual, although no less than three incisions have been made in the thorax for that purpose by Sir B. Brodie, assisted by Mr. Aston Key, Mr. Thompson, &c. The only mode by which nourishment can be administered to Mr. Brunel is through a glass tube, and the aliment is, of course, in a liquid state. From inquiries, made at the residence last night, we ascertained that Mr. Brunel was in a state of great exhaustion, that the medical attendants had found it impossible to proceed with the operation of extraction or removal in the present low state of their patient, and that it was feared, if the inflammation could not be kept under, the result would be speedily fatal.

Bristol and Exeter Railway.—The extension of the line to Beambridge—nine and a half miles—will take place on Monday, the 1st of May, after which the mails will be accelerated by nearly three quarters of an hour.

French Railways.—On Wednesday last, the Minister of Public Works presented to the Chamber of Deputies a project of law relative to the concession of the new line of railroad from Orleans to Tours, which was conditionally granted by the Minister on the 29th of March, 1843, to Messrs. Bullet, Donillard, Martin, and Co., on conditions nearly similar to those stipulated in the Paris and Belgium Railroad project. The concession is to be only for thirty-five years. It fixes the tariff of places for passengers at 3 sous, 1½ sou, and 1 sou per kilometre (about a mile and a quarter); and for merchandise, 16c., 10c., and 20c., according to the nature of the articles to be carried. The length of the line is 114 kilometres, and the capital to be applied by the company to its construction will amount to about 30,000,000*f.* The State is to share in that part of the net profits of the undertaking which shall exceed 12 per cent. on the capital.—The Rouen Railroad shares have experienced another fall; private letters state that the decline in those shares had been produced by the loss about being made to the company by Government, the interest of which would necessarily detract from their profits.

Railways in Ireland.—Some steps appear to be now taking for the promotion of railways in the Sister Isle, and it is hoped a measure which would give employment to a large proportion of her population, and place Ireland in a commercial point of view on a footing with other countries, will receive the serious attention of Government. Parties of wealth and influence have warmly taken up the subject, and had an interview with Sir Robert Peel on the expediency of reviving the Dublin and Cork Railway project. A meeting took place in the early part of the present month, at which were present Lords Mountcashel, Clare, Monteagle, Bandon, Bernard, and Hawarden, Sir Denham Norreys, Bart., and others, for the purpose of explaining the result of the interview with the Premier. The deputation had laid before him a project of the following outline:—That Government should introduce a public bill for the establishment of a company to undertake a railway from Dublin to Cork; proprietors of lands to be paid in shares—a guarantee for a certain amount of interest; Government to advance 500,000*l.*, at 3 per cent. interest, to be repaid at the expiration of twenty years, and, in return, certain advantages given to the Government in the conveyance of troops and mails. Sir Robert decidedly disapproved of the Government advancing money, or guaranteeing interest; but he entered with spirit into the discussion, and the deputation left with the impression that he would not be unfavourable to some such scheme as the following:—1. That the Government should introduce a public bill to enable companies to execute any line recommended by the late Railway Commission, but that no particular line be ordered to; 2. That all questions relative to the value and purchase of land, should be decided by a tribunal appointed by the Government. The gentlemen present, considering themselves too few in number to come to a decision as to the steps to be pursued, determined upon calling a public meeting, and the assistance of the Board of Works will probably be given.

ON THE USE OF IMPROVED PAPIER MACHE.



Though the manufacture and use of *paper* for the enrichments of ceilings, cornices, &c., is but little known to the generality of the public, it has been, for nearly 200 years, considerably in vogue, and has become, in the hands of Mr. C. F. Bielefeld, of Wellington-street, Strand, a manufacture of some considerable importance. Though the name is French, there is no doubt, however, that the invention is of English origin, and the particular circumstances which gave rise to its adoption for architectural purposes are well worthy consideration. With the Elizabethian style enriched plaster ceilings became general, and, in the more classic, or Italian, styles that followed, the same material was still more extensively brought into use; as the art advanced plaster became substituted for carved panelled wainscot. Foliage of the highest relief, and of the richest character, may still be found in many edifices remaining of the seventeenth and beginning of the eighteenth centuries. These enrichments were modelled by the hand on the stucco, in its place, while in a soft and plastic state; this work was obliged to be executed with rapidity, to prevent the stucco from setting before finished, and it was, therefore, necessary the operator should have some of the qualities of an artist, having, in a great measure, to design as well as execute; this tended to limit the number of workmen, their pay came to be proportionably large, they soon assumed a consequence far above their rank in life, and it is even said they have been seen coming to work with swords at their sides, and their wrists adorned with lace ruffles. These practices were, of course, productive of much inconvenience, and when, at length, the workmen threw aside all restraint, and combined together to extort a most inordinate rate of wages, the masters were obliged, in their own defence, to resort to other contrivances, to supersede the old mode of working in stucco. The art of moulding and casting in plaster, as previously introduced in France, was generally adopted, and the preparing the pulp of paper became greatly improved and extended, so as ultimately to render practicable the adoption of *papier mâché* in the formation of architectural ornaments. Thus the delusive efforts on the part of the workmen to promote their own grasping views extinguished the very trade by which they lived, and there probably has not been, for very many years, a single individual in England accustomed to the business. The general introduction of plaster casts produced, however, a very mischievous effect on decorative arts; all the deep undercuttings and bold shadows which marked the style in Queen Anne's time became impracticable, when ornaments had to be cast; a tame manner ensued, and by the end of the last century the art of designing architectural ornament had fallen into a sad state of imbecility. The introduction of the pure and elegant simplicity of Greek ornament suited the limited capabilities of plaster casting, and, for a time, prevailed, but the stimulus of novelty having ceased, the bold originality of the Gothic, the meretricious richness of the Flemish and French, and the picturesque and fantastic forms of the Elizabethian schools, have all found admirers, and it is this change in the manner of designing ornament which has given rise to the important improvements in the manufacture of the highly plastic substance, *papier mâché*. It is applicable to the exact imitation of all the bold *fluid* carvings and deep undercuttings of the above styles, and its hard compactness, yet elasticity, strength, imperishable nature, and lightness—the facility with which it may be put together and fixed—and, finally, its cheapness—are qualities which render its general adoption certain. In Mr. Bielefeld's show rooms will be found a most extensive assortment of ornaments and decorations, suitable for the cabinet maker, the architect, and house decorator, such as mouldings, cornices, centres, scroll legs of cabinets, and pier tables, ornamental brackets, window cornices, and canopies for bedsteads, &c.; for the latter purpose it has been advantageously used at Chatsworth, and at the throne in the House of Lords—also for the exterior of organs it is most appropriate; the most delicate tracery is executed with ease; for architectural decoration it is superior to wood carving itself, for all that Grinlin Gibbons has attempted on wood can be here executed, with all the sharpness of relief, as light, and having no grain, it is much more tough, and less liable to injury; columns of every order and degree of enrichment, capitals and bases, arabesques, caryatides, termini, chimera, &c. In churches all the ornamental parts of gallery fronts, altar pieces, organ cases, &c., are now frequently entirely composed of this substance—and, in fact, it is introduced for every description of ornament, superseding, not only plaster casting, but carving in wood itself, and in his assortment of picture frames will be found a sharpness and a relief in the ornament never hitherto attained in composition. We introduce a few representations of patterns in the show room, to give a general idea of what may be accomplished by this art.

JEFFERY'S MARINE CEMENT.

At a late meeting of the Society of Arts, Mr. Whishaw read a paper on Mr. Jeffery's marine glue, the peculiar properties of which are, its being insoluble in and impervious to water, elastic, so as to expand or contract, according to the strain on the timber, or the changes of temperature, sufficiently solid to fill up the joints, and add strength to the timber construction, and adhesive, so as to connect the timbers firmly together. Several practical experiments have been made in Woolwich and Chatham Dockyards; among these may be mentioned the following:—Two pieces of African oak, 18 inches long, by 9 inches wide, and 4½ inches thick, were joined together longitudinally by the marine glue, with a bolt of 1¼ inch in diameter, passed through each of them from end to end. The day after the marine glue had been applied, the blocks were tested by means of an hydraulic machine. A strain was applied to the extent of nineteen tons, at which point one of the bolts broke, but the junction of the wood by the glue remained perfect. Two bolts of 1¼ inch in diameter were inserted on the following day, and the strain was again applied until it reached twenty-one tons, when one of the bolts was broken, the junction of the wood still remaining perfect, and apparently not affected. Another experiment was tried with two blocks of African oak of similar dimensions, but bolted in a different manner, so as to apply the strain at right angles to the junction made with the glue at the centre. The wood split at a strain of five tons, but the joint remained perfect. The glue in one case was applied to elm; it resisted a strain equal to 360 lbs. on the square inch. This trial was made while the block was in a wet state, which state is considered most favourable for the effect of the glue. Several large pieces of timber were glued together, and suspended to the top of the sheers at the dockyard at Woolwich, at a height of about seventy feet above the ground. From that elevation they were precipitated on to the granite pavement, in order to test the effect of concussion; this wood was shattered and split, but the glue yielded only in one instance, in which the joint was badly made, and after the third fall. An experiment was made with reference to the composition being used as a substitute for copper sheathing. This composition was applied without poison to four sides of wooden blocks, and on two other sides it was applied in combination with poison equally destructive to animal and vegetable life. After the lapse of twenty-three months, these blocks were taken up, and were found to be covered with small shell-fish on the four unpoisoned sides, while the two sides charged with the poison were clean. The whole of the composition was slightly changed in colour, but was not deteriorated or affected in respect to its useful qualities. Another use consists in its application to the construction of masts. Its powers of adhesion and elasticity fit it for the purpose of joining the spars of which masts are composed. A great reduction of expense is likely to follow the adoption for this purpose, as shorter and smaller timbers may be rendered available, and most, if not all, the internal fastenings may be dispensed with. The mainmasts of the *Rinaldo*, a 10-gun ship, and of the *Trafalgar*, 120-gun ship, have been put together with glue, and the mainmast of the *Curaçoa*, now refitting from a 32 to a 36-gun ship, are in progress of being joined. This invention may also be applied to the construction of dock-gates, sluices, piers, wooden bridges, &c.

GUNPOWDER.—An old author says, quaintly enough, that "in the making of gunpowder there requires three essential ingredients—brimstone, whose office it is to enkel fire and flame of a sudden, and convey it to the other two; charcoal, pulverized, which continueth the fire and quencheth the flame, which otherwise would consume the strength thereof; saltpetre, which causeth a great ordonance, and driveth forth the bullet. Then gunpowder in the cannon of gallitch revenge, for it kindleth soon and burneth afterwards, the bullet being always at the mark before the report is heard. So thefft always a shrift a crime not by way of warning, but of triumph."

MINING OPERATIONS IN SPAIN—No. II.

In continuation of the extracts from notes with which we have been favoured, we offer the following abstract having reference to mines in the Asturias, regretting that space will not admit of a more extended notice, which, however, with other *materiel* in our possession, will appear in our next. In the mountains of Calduceno, La Montana de Alda, La Montana Carenes, La Montana Buena Vista, La Montana Roca, La Montana Pelgeroses, are copper lodes of much promise, producing near the surface all the varieties of copper ores. The mines are opened to a very little extent, the deepest being no more than about sixty feet from the surface, which is called La Suerte. This is a north-east and south-west lode, with a westerly underlay of three feet in a fathom. These mines are now being opened by Spanish capitalists. The matrix here, as well as in all the mountains in the Asturias, is principally lock. Lodes, varying from one to six and nine feet big, with rich leaders and courses of ores, yielding several tons per fathom. These mines are situate near the north coast, and within short carriage of the navigable river and port of Riba de Sella—ten leagues east of the port of Gijon. In this province, and in the vicinity of the towns of Arriondas, Infiesto, and Artiqueras, there are numerous veins of lead ores, rich in their produce, and many of them yielding silver, from 15 oz. to 120 oz. silver in the ton of ore. It abounds with an abundance of the richest class of iron ores and coal, and in the vicinity of the city of Oviedo particularly, coal is produced of excellent quality, where there are active operations going forward in making a railroad to export that article from the port of Gijon. Cobalt and cinnabar are found of the richest quality in the mountains of Asturias, as also amber and jet.

IMPERIAL BRAZILIAN MINING ASSOCIATION.

We are happy in being able to state that, notwithstanding the low produce of the mines during the past six months—in fact, the smallest ever known—the directors are enabled, and it is their intention at the ensuing meeting on the 11th of May next, to propose a dividend, out of actual profits. This has been effected by the strictest economy having been adopted in every department. Some few years since it took 600 lbs. of gold, or about 18,000*l.* sterling, to pay the half-year's expenses; while, with the produce of the past half-year, of only 369 lbs., they have realised a profit sufficient to declare a dividend; and it is confidently expected that dividends will again be paid at regular intervals. The present appearances of the Cumba Mine are more encouraging than for some time past, and sanguine expectations are formed that below the sixty-two fathom level this mine will prove highly profitable to the shareholders.

PRODUCE OF COPPER MINES IN CORNWALL.

FOR THE CORRESPONDING QUARTER ENDING MARCH 25, 1842 AND 1843.

Date.	Ore.	Price.	Prod.	Standard.	Fine cop.	Amount.
1843.	Tons.	£ s. d.	£ s. d.	£ s. d.	Tons cwt.	£ s. d.
Jan. 5..	4555	5 19 6	72	114 13 0	540 2	27,124 11 6
.. 12..	2405	6 13 0	80	192 5 0	302 0	16,119 13 6
.. 19..	2435	6 0 0	72	113 2 0	180 13	14,837 9 6
.. 26..	3461	5 15 6	72	115 6 0	253 19	19,750 7 6
Feb. 2..	2828	5 10 0	72	115 17 0	187 19	14,242 10 0
.. 9..	2429	6 19 0	9	162 15 0	218 15	16,982 9 6
.. 23..	2479	6 5 0	80	167 9 0	202 6	15,077 14 6
Mar. 2..	3050	5 1 6	72	109 12 0	219 0	15,099 10 0
.. 9..	4016	5 7 0	72	106 0 0	267 9	20,702 18 6
.. 16..	2296	6 7 6	80	104 12 0	193 4	14,168 13 0
.. 23..	2879	5 9 0	72	108 12 0	224 5	15,777 19 0
	33474	£5 16 11½			2602 10	£190,376 13 6
1842.						
Jan. 6..	4393	6 7 0	72	125 5 0	320 14	20,163 11 6
.. 13..	1795	6 0 0	7	125 5 0	125 15	10,593 4 6
.. 20..	2170	6 6 0	72	123 2 0	169 5	13,618 9 6
.. 27..	3453	5 7 0	80	124 15 0	236 1	16,614 14 0
Feb. 3..	3429	5 9 0	80	122 16 0	234 6	16,004 13 6
.. 10..	1288	5 17 0	72	121 2 0	91 0	7,542 7 0
.. 17..	1141	6 5 0	72	116 15 0	86 5	7,066 7 6
Mar. 3..	3594	5 10 6	72	115 19 0	234 4	19,504 11 6
.. 10..	2533	5 19 0	72	119 2 0	209 19	15,179 18 6
.. 17..	2316	5 4 0	7	118 8 0	178 17	13,137 5 0
.. 24..	3529	5 5 0	7	114 17 0	233 6	17,641 12 0
	32943	£5 8 10½			2344 5	£189,496 18 0

PROCEEDINGS OF PUBLIC COMPANIES.

REAL DEL MONTE MINING COMPANY.

A special general meeting of the shareholders was held at the offices, 2, Duke-street, Adelphi, on Thursday, the 27th instant, for the purpose of confirming or rescinding the resolutions passed at a meeting on the 10th instant, Mr. Wray in the chair.

The Chairman observed that, as this meeting was called for a specific purpose, no other proposition could be entertained, and, should the resolutions be rejected, other meetings must be called, and the same ground must be gone over again.—Mr. Phillips, the secretary, then read the advertisement convening the meeting, and also the resolutions adopted at the last meeting, explaining the plan for the capitalisation of the loans, which will be found in the *Journal* of the 11th of March.—The Chairman having put the question for the confirmation of the minutes of the last meeting, which was carried without any dissent, observed that neither of the two gentlemen who had all along opposed the plan were present on that occasion; but he would inform the meeting that he had seen one of them (Mr. Heath), who stated that he had no further intention of keeping up the opposition, nor should he take any steps for a Chancery suit, which had been threatened. He was not in possession of Mr. Goddard's sentiments at present; but he hoped they were as amicable. He considered these gentlemen had acted conscientiously, and, as they had fought the battle bravely, they deserved credit for it. He thought the plan the best that could be adopted; they should take the earliest opportunity of carrying it out; and he trusted the prosperity of the mine would enable them to give satisfaction to all parties.—A vote of thanks was then passed to the chairman and directors, and the meeting separated.

BLAENAVON IRON AND COAL COMPANY.

The annual meeting of this company was held at the offices, in Pancras-lane, City, on Friday, the 28th instant, and was numerously attended.—The chair was taken by Francis Warden, Esq. (the chairman of the company), who, after some preliminary observations, called on the secretary to read the report, from which it appeared that the directors regretted the increased depression of the iron trade, which they had endeavoured to meet by a general reduction in the expenditure of the company. As the works were in a most efficient state, it was stated that but a slight improvement in prices would be followed by a return of profit to the shareholders. In concluding their report, the directors submitted a plan for raising the sum required to carry on the concern, and the names of Mr. Masterman, Mr. Rashleigh, and Mr. Bevan, were proposed for re-election.—A ballot was then taken for the inspection of the proprietors.—After the reading of the report, a long discussion took place upon the manner of raising the sum required, so as to do justice to the holders of the new shares, and to give the full advantages that were expected to the old shareholders, by their advancing *pro rata*, in which the chairman, Mr. Masterman, Mr. Kennard, Mr. Hill, Mr. Bevan (directors), Mr. Kingsbury, Mr. Earle (of Liverpool), Mr. P. Jones, Mr. Jewell, Mr. W. W. Jones, Mr. Thompson, and other proprietors, took part, the result of which was, that resolutions to the following effect, and in support of the recommendations of the directors, were passed unanimously—viz., "That the new shares held by those parties who are willing to take a debenture at 5 per cent. upon the amount they have already paid up, be rescinded;" also "That the old shareholders be earnestly requested to subscribe at the rate of 3*l.* per share upon debentures, for five or seven years, at 5 per cent. per annum, to enable the directors to meet the present exigencies of the company."—The three directors (Mr. Masterman, Mr. Rashleigh, and Mr. Bevan) were then unanimously elected, to whom, as well as to the chairman and other directors, a very complimentary vote of thanks was carried, with applause, for their great attention and valuable services to the company.—A list of shareholders who had approved of the plan of the directors, was laid on the table, which was immediately signed by a number of others in the meeting.—The Chairman then moved the adjournment of the meeting to the 10th of May, for the purpose of confirming the resolutions passed on this occasion, when the business terminated.

Rock Salt.—Rock salt is more abundant in Cheshire than in any other part of Great Britain, where the deposits lie along the line of the valley of the river Weaver, in small patches, about Northwich. The salt was accidentally discovered in the year 1670, in sinking a coal-pit at Marbury, about a mile from Northwich; about 60,000 tons are annually taken from the pits in the vicinity of the town. There are two beds of rock salt, lying beneath forty yards of coloured marls, in which no traces of organic remains occur; the upper bed is twenty-four yards thick, and is separated from the lower one by ten yards and a half of coloured marls, similar to the general cover; and the lower bed of salt is above thirty-five yards thick, but has nowhere been pierced. Whether any other beds lie below these two is at present unknown. They lie horizontal, or nearly so, and both are below the level of the sea; they extend into an irregularly oval zone, in length a mile and a half, in breadth about 1,000 yards, ranging from north-east to south-west.

INSTITUTION OF CIVIL ENGINEERS.

April 25.—The President in the chair. The minutes of the discussion gave some sound practical remarks upon the Glasgow Water-Works, by Mr. James Simpson, in which he stated that when filtering medium was properly disposed, the impurities suspended in the water were arrested at or near the places of ingress, and that, therefore, filtering-beds should be of extensive surface, in order to allow of the process being as slow as possible, and that by following this system, he had not found it necessary to change the mass of the materials composing the filtering-beds during sixteen years, but only to change the surface.

The Secretary then read an account of the brickmaking at the Bletchingly Tunnel, by Mr. F. W. Simms. This part of the Dover Railway was not let by contract; it was, therefore, necessary to make extensive preparations previously to commencing the work, and of these a good supply of bricks was the principal. The clay for making them fortunately abounded immediately above the line of the direction of the tunnel; the brickgrounds were, therefore, established near the several shafts which were used for the excavation. Drying-houses and kilns were also erected for manufacturing during the winter, and from the details given in the paper, every care appears to have been devoted to making the bricks in the best as well as the most economical manner; accurate observations were recorded of the cost of every separate process, with the time occupied; and the result was, that during the winter of 1840, and the following summer of 1841, upwards of 14,000,000 bricks were made of a superior quality, at a cost of 2*l.* 1*s.* 6*d.* per 1000, delivered at the shafts, which was a little under the cost allowed for in the original estimate expense. The paper contained also a careful comparison of the two modes of "slop moulding," and "sandstock moulding," and gave many details of use for consultation for engineers or architects. An animated discussion ensued, in which many useful practical points were elicited.

The following papers were announced to be read at the next meeting (May 2), when the monthly ballot for members will take place:—"Description of a Cast-Iron Bridge completed in the year 1840, for carrying the Birmingham and Gloucester Railway over the River Avon, near Tewkesbury," by Captain Moorsom, Assoc. Inst. C.E.—"Description of Cast and Wrought-Iron Bridges, erected on the line of the Bishop Auckland and Weardale Railway," by John Storey.—"Description of a Roof erected at the Chartered Gas Company's Works, Westminster," by F. T. Evans, Assoc. Inst. C.E.

NATURAL AND ARTIFICIAL COAL.

During the last week a series of very interesting experiments have been made at the Polytechnic Institution, to test the value of a new species of artificial coal, invented and patented by M. Jouvelin Cooke, Esq., as compared with the best natural anthracite. Mr. Cooke's specification not having been yet enrolled, we cannot state what the component parts of his coal are, but we understand that it is chiefly made up of the refuse of average small Newcastle coal. It has a very compact appearance, burns brightly, has no tendency to coking, and yields a very small portion of ashes. The experiments were made by alternately working the steam-engine of the institution with the Welsh and with the patent coal, for whole days at a time. From the results, which are exhibited in the following table, it will be seen that the difference of consumption, though not great, was in favour of the patent fuel. It must be remembered, however, that while the average small Newcastle coal costs only 15*s.* 9½*d.* per ton in the Pool, the best Welsh costs 17*s.* 11*d.*; what the refuse of the former may be had for we do not know, but we should suppose for not more than one-half as much. To the gain, therefore, in point of quantity, must be added the still greater gain in point of price; so that the difference in favour of the patent fuel must altogether be very considerable.—We quote the foregoing from the *Mechanics' Magazine*, which also gives the following as the results of the different experiments:—

	Quantity consumed. cwt. qrs. lbs.	Average pressure. lbs. per inch.
No. 1. Welsh	4 3 14	33·9
No. 2. Welsh	4 2 0	34·2
No. 3. Cooke's fuel	4 2 0	34·5

NEW PATENTS FOR APRIL.

(FROM MESSRS. ROBERTSONS' LIST.)

N. H. J. Francois, Comte de Cronay, Edgware-road, Middlesex, for certain improvements in rotary pumps and rotary steam engines.

R. Faraday, Wardour-street, Soho, gas fitter, for improvements in ventilating gas burners, and burners for consuming oil, tallow, &c. (Being a communication.)

Sir S. Brown, Knt., Blackheath, Commander in her Majesty's Navy, for improvements in the construction of breakwaters, and in constructing and erecting lighthouses and beacons, fixed and floating, and in apparatus connected therewith; and also in anchors for mooring the same, which are applicable to ships or vessels.

J. Sylvester, Great Russell-street, Middlesex, engineer, for certain improvements in producing ornamental surfaces on or with iron, applicable in the manufacture of stoves, and other uses; and for improvements in rendering transmission of heat.

F. Hills, of Deptford, manufacturing chemist, for certain improvements in steam-boilers or generators, and in locomotive carriages.

G. J. Young, Bostock-street, Old Gravel-lane, Wapping, engineer, for improvements in the construction of capstans.

J. Boydell, jun., Oak Farm Iron-Works, near Dudley, ironmaster, for improvements in manufacturing bars of iron with other metals.

R. and W. Hawthorns, Newcastle-on-Tyne, civil engineers, for certain improvements in locomotive-engines, parts of which are applicable to other steam-engines.

J. Michell, Chiverton, Cornwall, for improvements in extracting copper, iron, lead, bismuth, and other metals or minerals, from tin ore.

J. Napier, Hinton, Middlesex, dyer, for improvements in preparing or treating fabrics made of fibrous materials, for covering roofs and the bottoms of ships and vessels, and other surfaces; and for other uses.

Wm. Maxwell, Bowling-green-row, Woolwich, artist, for improvements in machinery or apparatus for registering or indicating the number of persons which enter any description of carriage, house, room, chamber, or place; and also the number of passengers and carriages that pass along a bridge, road, or way.

C. Toplouf, J. F. Dupré, and H. Dubs, Vulcan Foundry, Lancaster, engineers, for certain improvements in boilers.

J. Byrom, Liverpool, engineer, for an improved system of connexion for working the cranks of what are commonly called direct action steam-engines.

C. L. Farvig, Henrietta-street, Covent-garden, tin-plate worker, for certain improvements in gas-meters.

J. G. Bodmer, Manchester, engineer, for certain improvements in locomotive steam-engines and carriages to be used upon railways, in marine engines and vessels, and in the apparatus for propelling the same; and also in stationary engines, and in apparatus to be connected therewith for pumping water, raising bodies, and for blowing or exhausting air.

J. Read, Howland-street, Fitzroy-square, artist, for improvements in the manufacture of tin and other soft metal tubes.

T. Oram, Lewisham, Kent, patent fuel manufacturer, and F. C. Warlich, Castle-street, gent., for improvements in the manufacture of fuel, and in machinery for manufacturing fuel.

J. Johnston, Esq., Willow Park, Greenock, for improvements in the construction of steam-boilers, and machinery for propelling vessels.

R. Prosser and J. Cutler, Birmingham, civil engineers, for improvements in the machinery to be used in manufacturing of pipes and bars, and in the application of such pipes or bars to various purposes.

F. C. M. Vieillette, Leicester-square, late advocate, for improvements for warming the interior of railroad and other carriages. (Being a communication.)

J. Mann, Milman-street, Bedford-row, surveyor, for improvements in the manufacture of bricks to be used in the construction of chimneys and flues.

W. Mays, Lower Clapton, Middlesex, and J. Warmington, Wandsworth-road, Surrey, gentlemen, for improvements in the manufacture of aerated liquors, and in vessels used for containing aerated liquors. (Being a communication.)

J. Whenyeat, Liverpool, ship smith, for an improved mode of roofing certain ships of ships, and other vessels.

An Iron Palace.—A few weeks since we gave a brief notice of the iron mansion then in course of erection in Liverpool for an African King; we now subjoin some interesting particulars, for which we are indebted to the *Liverpool Standard*:—"The palace of King Eyamba, of Old Calabar, built of plates and panels of iron, upon a wooden skeleton merely, by Mr. W. Laycock, the iron merchant, of Oldhall-street, was, on Friday, open to public exhibition (for the benefit of the charities), in the open space near the Post-office. The structure consists of two stories and an attic. The dwelling contains a centre-hall, forty feet by fourteen, and four rooms eighteen feet by fifteen; the whole ten feet high. The second floor is thrown into one grand state room, forming the royal audience-chamber, fifty feet by thirty, extending to forty in the recesses, and lighted by thirteen windows. It is extremely airy and handsome, and is twelve feet in height. The attic is one apartment, extending over the entire building. The ceiling and walls of the hall of audience are richly decorated by Mr. Dodd, of Bold-street, and on the walls are placed a number of Jesolins and Betteridge's splendid pictures, in *papier mâché*, which will certainly astonish "the natives." More of these are to follow; one of the lower rooms is to be absolutely gorgeous; and those who visit the palace once will be induced to go again, from the circumstance that embellishments of the first order will be gradually added to the attractions of the palace. When in Africa, the building will be placed seven feet clear above the ground, on piles of hard wood, leaving space for ships and bad rooms, the whole being designed rather as a state, or business, palace, than as a domestic residence. It is surrounded by a balcony and verandah, and will be painted a light straw colour, to resist the solar heat. The value of the whole is from 12000*l.* to 14000*l.* It is stated that his Majesty has gone mad."

Irish Railways.—A meeting of Peers and Members of the House of Commons, connected with Ireland, we perceive, is announced to be held at the Thatched House Tavern, on Wednesday, the 3d of May, for the purpose of promoting a railway communication between Dublin and Cork, and Limerick and Clonmel. Full particulars of the proceedings shall appear in our columns.

The Coal Duty.—The receipts for coal duty at the Newcastle Custom House, for the first quarter of this year, amounted to 19,000*l.*—bringing an average of about 7*s.* 10½*d.* per ton. The quantity exported during the corresponding quarter of last year, would, at the same rate of duty, have produced 12,500*l.*—*Gateshead Observer.*

TO ENGINEERS, MILLWRIGHTS, AND MACHINE DRAUGHTSMEN.—WANTED, in an Iron Foundry and Engine Shop in the country, where about seventy hands are employed, a YOUNG MAN TO ASSIST IN THE MANAGEMENT. He must possess a knowledge of modern mechanical practice in the engineering and millwrights' departments; he must be a good draughtsman, sober and steady in his habits, and a member of the Established Church.—Any application marked "T. B."—under cover to the Editor of the *Mining Journal*, 26, Fleet-street, London—stating age, salary, course of education, &c., will be attended to.

MEETINGS OF SCIENTIFIC BODIES.
IN THE ENSUING WEEK.

SOCIETY.	PLACE OF MEETING.	DAY.	HOUR.
Entomological	17, Old Bond-street	Monday	8 P.M.
British Architects	16, Grosvenor-street	Monday	8 P.M.
Medical	Bolt-court, Fleet-street	Monday	8 P.M.
Linnean	Soho-square	Tuesday	8 P.M.
Horticultural	21, Regent-street	Tuesday	2 P.M.
Civil Engineers	25, Great George-street	Tuesday	8½ P.M.
Chemical	Society of Arts, Adelphi	Tuesday	8 P.M.
Society of Arts	Adelphi	Wednesday	7½ P.M.
Royal	Somerset House	Thursday	8½ P.M.
Antiquaries	Somerset House	Thursday	7 P.M.
Zoological	57, Pall-mall	Thursday	8 P.M.
Royal Institution	Albemarle-street	Friday	8½ P.M.
Botanical	20, Bedford-street, Cov.-g.	Friday	8 P.M.
Mathematical	Crispin-street, Spitalfields	Saturday	8 P.M.

PUBLIC COMPANIES.
MEETINGS.

Preston and Wyre Railway, &c.	Fleetwood	April 29	1.
London and Birmingham Railway	Euston Hotel	May 1	12.
Southwark Bridge Company	Queen street-place	2	12-1.
Anglo-Mexican Mint	9, New Broad-street	2	1.
Reliance Mutual Life Assurance	71, King William-street	2	1.
British Alkali Company	Stoke Prior, Worcester	3	—.
Imperial Life Assurance Co.	Sun-court, Cornhill	3	1.
Ulster Canal Company	6, Austin friars	3	11.
Equitable Assurance Society	Offices	4	11.
General Annuity Endowment Ass.	London Tavern	4	2.
Westminster Fire Insurance Co.	King-street, Covent-garden	4	12-1.
City of Dublin Steam Packet Co.	15, Eden Quay, Dublin	4	1.
Mexican Company	32, Great Winchester-street	4	2.
Bodmin and Wadebridge Railway	Offices, Bodmin	5	12.
British Fire Insurance Co.	Strand	5	12.
Assam Company	London Tavern	5	12-1.
Great North of England Railway	Waterloo Hotel, Durham	6	12.
West Wh. Jewel Mining Assoc.	23, Threadneedle-street	8	12.
Imperial Continental Gas Company	7, White Hart-court	10	2.
Commercial Gas & Coke Company	London Tavern	11	1.

CALLS.

Newcastle and Darlington R'way.. 5*l.* per share .. May 1.... As former calls.

DIVIDENDS.

Bank of Ceylon ..... 6 per cent. .... Office, St. Swithin's-lane .. May 15

NOTICES TO CORRESPONDENTS.

The MINING JOURNAL *is regularly published about Two o'clock on Saturday afternoon, at the office, No. 26, FLEET-STREET, where it can always be obtained and there is no cause for irregularity in its supply, in town, other than neglect on the part of the agent through whom it is ordered; but, as respects its transmission to country subscribers, the blame is shared with the Post-office authorities.*

"A Subscriber" (London).—We feel obliged to "A Subscriber" for his note, though not the most complimentary, and for the information contained. The point mentioned shall be attended to; and, as we are desirous of appending additional information, could not our correspondent assist us, occasionally, with matters in connection with the different subjects on which he writes?

ARRIAL TRANSIT.—We are requested by Mr. Phillips to apologise for the non appearance of the promised continuation of his series of papers on this subject. That gentleman considers that giving further publicity to his views, at present, would materially interfere with their progress, but that every particular shall appear in our columns immediately he may consider it expedient so to do. We confess we are not sufficiently "at home" on this "flighty" subject to fill up the hiatus, so must needs await Mr. Phillips's convenience.

"A Reader" (Falmouth).—We are unacquainted with the particulars required, but should our correspondent obtain them from the source he expects, or point out how they can be acquired, we shall be happy to use every exertion for the possession of information that cannot be otherwise than most acceptable to our readers.

SALT MINES.—We have received a communication with reference to these mines, but which, we presume, was rather of a private nature than intended for publication. It is, however, highly satisfactory to learn that the mines are in so promising a state, and thus justifying the reports made by Mr. Percival Johnson and Captain N. Vivian. In reply to the postscript, we have only to refer our correspondent to our advertising columns, by which he will observe the sale of the forfeited shares is fixed for the 5th of May.

"W. M." (Ludlow).—We are obliged by the courtesy of our correspondent; the particulars, he will find, have been availed of, and we shall at all times be most thankful for similar information, as it is chiefly by the aid of residents we can hope to obtain particulars of local events, which are, we fear, too often passed over as of "not sufficient importance to take trouble about," while their publicity might greatly facilitate the labourers in the arduous pursuits of scientific research.

EMIGRATION COMPANIES.—Our next article on this subject—on the New Brunswick and Nova Scotia Land Company—will be one of particular interest, and may be considered well deserving the attention of parties interested in the subject, whether as proprietors or emigrants. It was intended for our present number; but the extensive nature of the information, and the desire of rendering it as correctly as possible, compels us to defer its insertion until our next.

GEOLOGY—NEW SYSTEM OF PHILOSOPHY.—We feel compelled to decline the publication of all further correspondence on this subject. We have several letters in type, but the evidently interminable nature of the discussion, and the acrimonious feelings that must be displayed, has forced us to the conclusion that its entire suppression will reflect more credit on the parties interested, and prevent our Journal being made the medium of giving publicity to matter alike inimical to our own feelings and objectionable to the majority of our readers.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, APRIL 29, 1843.

*** Parties desirous of ordering the *Mining Journal*, can do so, either direct to the office, or through any newsvendor or bookseller in town or country. Notices of irregularity in the delivery are requested to be forwarded to the office where every endeavour will be made to rectify the cause of complaint.

The increasing interest attached to mining operations, whether in this country or abroad, is evidenced by the advance in price of the shares of the respective companies, and the desire manifested to embark in new adventures which present themselves—more especially as relates to foreign mines. The feelings we entertain on this subject are too well known to require any remark on the present occasion, inasmuch, that as one of the main and principal objects of the Journal is the encouragement of mining pursuits, we cannot confine our observations or attention to any one district or kingdom, although we may have a wedded partiality for our own country. We have from time to time indulged in the hope that the effect produced by the tariff would not be so injurious to the mines of this country as, in the first instance, we were led to believe; and, to a certain extent, that hope has been realised, extra exertion having been used to give an addition to the returns of the mine, in the shape of increased quantities of ore—the cost of management, water charge, and other expenses remaining the same—and thus enabling the adventurer to overcome, in some measure, the effects arising from the depression in the standard. Thus it became necessary to extend the levels at the lower workings of the mine, and, in many cases, to sink the sump shaft, so as to open "new ground;" while, in new undertakings, it was manifest, unless more than ordinary exertion was applied to stem the torrent which had set in against our home mines, that they would be swamped, and much of the capital embarked in them become a total loss. To this conviction may, in a great measure, be attributed the promising aspect of our mines at the present moment, despite the disadvantages under which they labour; and thus affording further evidence, if such were necessary, of the determination of our countrymen not to abandon the bark while there is a chance of keeping her afloat, more especially when the very existence of those by whom she is manned is dependent on her safety and security. We have received from several correspondents, in the county of Cornwall, cheering accounts of the aspect which the mines present; but, as we are anxious to avoid the notice of any particular mine—which might lead to the supposition that we exercised any bias, or felt any peculiar interest as to the success of one or other—we avoid particularising them, leaving to the Ticketing Paper and the share list to afford evidence of the improving state of the mines in that county. We have this week compiled a table, showing the sales of ore by public ticketing for the quarter ending March 25, 1843, with the produce and standard, to which we have appended the comparative produce and standard for the like three months in the preceding year. From these tables it will be seen that the quantity of ore raised in the quarter ending 25th March, 1842, was 32,945 tons, while in the corresponding quarter of the present year it amounted to 33,474 tons, or an increase of 529 tons. The price obtained for the former period was 5*l.* 8s. 10½d., while for the three months of the present year that obtained gives an average of 5*l.* 16s. 11½. The rate of fine copper, as shown by the Ticketing Paper, is, for the first quarter in 1842, 80*l.* 16s. 1d., while for the past three months the rate is 75*l.* 4s. 9d. per ton. It may further be observed that the highest standard for the like period was, in 1842, 125*l.* 8s., for produce of 7¼—the lowest 110*l.* 9s., with produce of 7¼—while in the past three months the highest obtained has been 115*l.* 17s., produce 7¼, and lowest 104*l.* 12s., with produce of 8¼—thus demonstrating the serious decline arising from the new tariff, with which our home produce has had to contend.

We have, in our present Number, entered more at length than has been our custom of late into the proceedings of the Court of Aldermen on the inquiry instituted as to the fraud committed in the Talacre Coal and Iron Company—with the view of ascertaining how far, if at all, Mr. Alderman THOMAS WOOD is culpable, or may be considered a party thereto—inasmuch that the evidence adduced establishes certain facts with which, although we were in part acquainted, have not been brought under notice; while the reports which appear in our contemporaries are evidently garbled, and, by concealing the principal features to which the attention of the committee was directed, are calculated to mislead. As the evidence is to be printed, we await its production entire ere we offer any observations on it as a whole, or attempt to afford explanations or additional information—which we think we are in a position to do—having, moreover, been in the immediate locality of the *works* (?) since the publication of our last Number.

Without, however, anticipating the report of the Court of Aldermen, we avail ourselves of the present opportunity of making some passing remarks on the evidence given on Saturday last. It appears, then, from the evidence of Mr. ASHURST, that he did not possess "the original minute book, and had never seen it, or a copy of it." As much must depend on the contents of this book (for by "original" we understand the *first* on the formation of the company to be meant), its absence, and the want of knowledge on the part of the trustee, chairman, and solicitor, of the company—the three offices being held by one individual, and that individual Mr. Alderman THOMAS WOOD (the integrity of whose conduct in the transaction is the subject of the inquiry)—as also Mr. WESTON, the secretary, is calculated to make an impression injurious to the formes gentleman; but we should hope, in the absence of direct evidence, that the Court of Aldermen will give him the benefit of the doubt; indeed, in our opinion, he requires it, or any other adventitious aid which circumstances will allow. As the affidavit of Mr. Ald. THOS. WOOD would, however, lead to the inference that he was in possession of a *copy* of the minutes, he will, perhaps, at the next meeting of the court, lay such before the chairman; therefore we must not be ungenerous, or raise a doubt as to the course the learned Alderman, assisted by his legal advisers, may deem it prudent and proper to pursue.

We come now to an important piece of documentary evidence which, happily for the furtherance of justice and elucidation of the truth, Mr. ASHURST did possess; and, that we may make "no mistake," we here quote the paragraph in the report to which we have already made reference:—

> He (Mr. Ashurst) also produced the resolution, signed by Mr. Wood, authorising the delivery out of a large number of the FREE SHARES, to the following effect:—"That, 72,400*l.* of the *paid up* shares be delivered forthwith to Messrs. Wood and others, in part payment of the Talacre property."

It further appears, on reference to the share ledger, or other books, showing the division, or appropriation of shares, that certain paid-up, or free shares, had been allotted to, and inscribed in such books, in the names of Mr. Ald. THOMAS WOOD, Mr. Deputy WESTON, Mr. J. DAVIS (of West Cork notoriety), Mr. BAGNALL, &c. It is, however, only due to Mr. Ald. THOS. WOOD (as far as his assertion goes) here to state, that he repudiated ever having taken the shares entered to him, although Mr. ASHURST subsequently added, in substance, "that the shares had, at all events, been taken from the company, and by Mr. Ald. THOMAS WOOD;" to which we may add (although our information, we admit, comes from a suspicious quarter, for it was furnished by one of the *particeps criminis*) that Mr. Ald. THOMAS WOOD took over the shares to Dublin—that they were in his custody, if he did not even produce them on that occasion; and, moreover, that, on his return, he deposited them in the hands of the secretary, a son of Mr Deputy WESTON—the latter being a participator in the *profit* arising out of the transaction.

We now arrive at another interesting little document, calculated to throw additional light on the matter, and here transcribe it as given in the report. It purports to be, and indeed is, and so observed, an order on the directors of the company, signed by *themselves*, as vendors, to deliver over a part of the purchase-money, in free shares—the party in whose favour the order is made being one of the vendors, but not a director—the parties signing being vendors and purchasers; the latter in their capacity as directors of the company. The document, however, will best speak for itself, it runs thus:

London, January 31, 1840.

GENTLEMEN,—We request you will deliver to George F. Baker, seven hundred and forty eight 3*l.* shares in your company, being *part* of the amount of the purchase of the Talacre property.

This letter is addressed *to* the directors of the Talacre Coal and Iron Company, and is signed by *Thomas Wood*, WARWICK WESTON, JOHN DAVIS, WILLIAM HODGES, J. E. HYNDMAN, and others. Now, here we find the learned Alderman signing an order upon himself, while, if he was no party to the sale, what authority, we would ask, had he to attach his signature for the payment of so large a sum as that represented by the shares, to GEO. F. BAKER? and who, on the *fly-leaf*, admitted having received the same. Here, then, we have the identity complete of Mr. Ald. THOMAS WOOD being a participator in the transaction, and—we have a right to assume—the profits arising from the sale.

We now arrive at another important point of the investigation, and one to which we are anxious to direct especial attention, for it supports the view we have ever taken of the course which the Court of Aldermen would adopt—viz., to afford every loophole for escape, and to "blink" the question. Mr. Alderman FARRER THER, it appears, wished to confine the inquiry alone to the point—whether the coal sent to Dublin, in the early part of 1839, alleged to be the produce of the Talacre Colliery, was such in fact, or whether such was obtained from the Bryn Colliery, which did not belong to the company, and thus a fraud was practised. He considered this the most important point of inquiry, forgetting the whole nature of the transaction from beginning to last—the purchase, the sale, the division of the spoil, the offices held by Mr. Alderman THOMAS WOOD—which were of a protective character, but which, as is alleged, he turned to private advantage, and thus abused his trust, whether in the capacity of trustee, *director*, or solicitor of the company.

The evidence afforded by Mr. ASHURST on this point appears to us to be most conclusive—the "invoice from LEVASON and BAKER, made out to the Talacre Company, *for* coal supplied to them *from* the Bryn Colliery (the Bryn Colliery not being the property of the company), and two checks paying for those coals," being put in, the chairman very naturally puts the question—"Whose checks

are they?" And what is the reply of Mr. ASHURST?—"They are signed by Mr. Ald. THOMAS WOOD and Mr. WESTON, and countersigned by the secretary." It is hardly necessary for us to proceed further, as it is notorious that the Picton Mine, which formed the Talacre property at the time, was perfectly distinct from that of the Bryn; and, moreover, that the latter was purchased at a subsequent period, by the directors, and held under a distinct lease—the Bryn Colliery at the time referred to by Mr. Ald. FAREBROTHER being the property of Messrs. FOULKES and Co. With reference even to this latter addition to the property, it appears that the company paid 100 per cent. on the purchase money.

The Court of Aldermen, in this inquiry, must not forget the position in which Mr. CHAPPELOW has been placed by Mr. Ald. T. WOOD—indeed, we should hope, that it is hardly necessary to remind them, that this gentleman was confined for three months in a prison, upon a judgment recovered on the bills which Ald. THOS. WOOD advised him to sign, and which formed part of the 110,000*l.* given by the company's deed to Mr. Ald. WOOD and others for the Picton property of 489 acres. The Aldermen of London should—and, doubtless, do—know that two of the shareholders have been already made bankrupts; and will feel that it is due to the families, as well as to the business connections, of Mr. SHAW and Mr. CHAPPELOW, to inquire into every matter connected with the company. Let them also reflect upon the misery which the families of the shareholders have had entailed upon them through Mr. WOOD, and pause before they close so narrow and uneven an inquiry. Mr. Ald. WOOD is before them—Why not Mr. CHAPPELOW, Mr. TAYLOR, Mr. SHAW, Mr. SLAUGHTER, Col. VERNER, Messrs. WILD, RAWSON, ATKIN, and the other unfortunate shareholders?

We have now run through the main features of the proceedings, and it appears to us that, up to the present time, the inquiry has not been of that searching nature which its importance, as affecting the character of a magistrate of the City of London, and a candidate for the highest honours the citizens can confer, demands. However, the Court of Aldermen may be of opinion that they possess sufficient evidence to prove a guilty knowledge, if not actual participation in the fraud; and, as such may be considered ample to effect the object in view, they are not anxious to enter upon additional evidence, which, while it might tend to blacken the character of the party accused, would be attended with much trouble and expense, besides being the cause of much acerbity of feeling. In all this they may be right; but if they do not follow up the inquiry to that point which is essentially necessary for the protection of the public and for upholding the high character which should pertain to the magistracy of the City of London, we shall well canvass their acts, and see the nature of the evidence on which they ground their conclusions.

In another part of our Journal will be found a short notice of the plan patented by Mr. BANKS for railway wheels, by introducing steel in the tire, whereby a very considerable saving is effected, as demonstrated by the relative costs of those constructed on the present plan and by the patented method. The patent being now in operation, and some of the wheels having travelled over a space of upwards of 50,000 miles without requiring repair—and, further, as we are given to understand, being, from appearance, well calculated to perform nearly double the distance—the saving which may be effected by this plan forms an important feature in the expenditure of railways, which, when once constructed, require only scrupulous attention to the item of wear and tear, and to the economy of locomotives. We believe we are right in saying, that at least 1,000,000*l.* has been expended in the cost of railway wheels; now, if, by this mode of partially steeling the tires, a saving, as shown by the article to which we have referred, of 200,000*l.* per annum can be effected, it would form an important item in the account of expenditure. We hope to be in possession of other and more detailed information, when we shall gladly present it to our readers, feeling that, to enjoy all the advantages contemplated by the construction of railways, the saving of time, and comparative reduction of distance, are not the only desiderata, for, in addition to an ample remuneration being derived by the shareholder, a reduction in the cost of transit is looked for by the public. Any invention calculated to effect this object, is highly deserving of notice, and, as evidence of the opinion entertained of the importance and value attached to the patent, we may observe that licenses have already been granted to parties in London, and other parts of the country.

If we did not in our last Number advert to the demise of his Royal Highness the Duke of SUSSEX, it was not that we did not feel the loss sustained by the scientific world, to whom his patronage was ever afforded, but that we were desirous of following in our even course, confining our remarks to the incidents of the day as applying to scientific research, from which his Royal Highness had of late, to a certain extent, withdrawn. As the President of the "Society for the Encouragement of Arts, Manufactures, and Commerce," his loss is felt, for ever did he evince towards that institution a feeling, which was not only honourable to him as a scion of noble blood, but which had its natural influences on the scientific world, and, in a great measure, contributed to the progress of science, and the advancement of the society. It is now, we believe, thirty-two years since the Duke of SUSSEX was elected as a member of the society, and presided at the annual distribution of prizes; and, in the year 1816, was elected president. While we regret his loss as a patron of science, we have to congratulate ourselves on the proud position which his Royal Highness held during his life, and the example he has set to others to follow in his wake.

It is with much pleasure we direct attention to an article in our present Number from the pen of our able and valued correspondent, W. J. HENWOOD, F.G.S., more especially as that gentleman has given us to understand that, after fourteen years' anxious toil, his work—which will, doubtless, establish the author in the estimation of those to whom he is unknown, in that position to which he is so justly entitled—will shortly issue from the press. We have been favoured with a perusal of some of the tabular matter, with the statistical information conveyed, and cannot but anticipate that the publication will be as useful and valuable to those who take an interest in scientific pursuits, and mining operations, as it will redound to the credit of its talented author.

ANTHRACITE IRON.—We are given to understand that a furnace has just been started at Trimsaran, about five miles below Llanelly, to smelt with anthracite alone (on previous under Mr. CRANE'S patent), and the foundations of a second laid on the 22nd instant. The make is, we learn, at the rate of fifty to fifty-five tons per week; but, as the furnace can hardly be considered warm, or in a working state, it would be unjust to form any conclusions—although the "make," we should say, is fair, judging from the Talacre works, and now especially as coals, we believe, exceeds the average made with cold-blast at the Ynisbyfem Works. At Mr. CRANE'S works, a new furnace has also been blown in within the past fortnight, but we are not in possession of such information as would justify us in speaking of results, which, however, we look to be of a satisfactory nature.

COAL MINING AT HARRINGTON.—We have much pleasure in announcing that the coal-pits at Harrington are again in active operation. The deepest gratitude is felt by the inhabitants, particularly the labouring classes, towards the worthy proprietor, Henry Curwen, Esq., for the timely re-opening of a colliery, which is, to a great measure, the sole dependence of the town. May it go on prosperously; and, while its operations prove advantageous to its proprietor, they will, at the same time, tend to relieve the distresses which the poor now enquired in it have lately felt.—*Whitehaven Herald.*

COAL IN NEW ZEALAND.—Companies are said to have been formed for working the coal mines in Cook Bay, and four specimens of the coal have been sent to England as specimens.

ON SUBTERRANEAN TEMPERATURES, OBSERVED IN THE CORNISH MINES.

BY W. J. HENWOOD, C.E., F.R.S., F.G.S. LONDON AND PARIS.

[Communicated by the author.]

As the explosion of gunpowder, combustion of candles, and respiration of the workmen in mines, must inevitably affect the temperature of the air in them, and also, more or less, influence that of the rocks which form the sides (walls) of the levels; observations on the temperature, either of the air or the rocks, must, to some extent, be open to objection. This cause of error is, however, less likely to operate on streams of water flowing from the unbroken rock; all the following observations have, therefore, been made on the temperature of running water immediately as it issues.

The various districts consist of the ten different groups into which the mines of the west of England seem naturally separated; and they have been fully described in the *Transactions of the Royal Geological Society of Cornwall*, vol. v.

The order in which my results may be most conveniently arranged, is, I., the temperatures at corresponding depths in the different districts; II., those of the two great rock formations, under similar circumstances; III., those of the veins (lodes) yielding different metals; and, IV., of the rocks, veins (lodes), and cross veins under like conditions.

TABLE I.

THE FOLLOWING TABLE INDICATES THE MEAN DEPTHS AND TEMPERATURES OF THE DIFFERENT DISTRICTS.

Districts.	Surface to 50 fathoms.	50 to 100.	100 to 150.	150 to 200.	200 and below.	Means.
St. Just	depth. 24 ; temp. 52·16	depth. 74 ; temp. 54·77	depth. 125 ; temp. 56·25	depth. 174 ; temp. 58·75	depth. 225 ; temp. 60·75	depth. 124 ; temp. 56·54
St. Ives	depth. 21 ; temp. 51·66	depth. 71 ; temp. 54·66	depth. 121 ; temp. 56·66	depth. 171 ; temp. 58·66	depth. 221 ; temp. 60·66	depth. 121 ; temp. 56·34
Morvah	depth. 27 ; temp. 52·75	depth. 77 ; temp. 54·75	depth. 127 ; temp. 56·75	depth. 177 ; temp. 58·75	depth. 227 ; temp. 60·75	depth. 127 ; temp. 56·75
Gwinear	depth. 24 ; temp. 52·16	depth. 74 ; temp. 54·66	depth. 124 ; temp. 56·66	depth. 174 ; temp. 58·66	depth. 224 ; temp. 60·66	depth. 124 ; temp. 56·34
Helston	depth. 24 ; temp. 52·16	depth. 74 ; temp. 54·66	depth. 124 ; temp. 56·66	depth. 174 ; temp. 58·66	depth. 224 ; temp. 60·66	depth. 124 ; temp. 56·34
Camborne	depth. 24 ; temp. 52·16	depth. 74 ; temp. 54·66	depth. 124 ; temp. 56·66	depth. 174 ; temp. 58·66	depth. 224 ; temp. 60·66	depth. 124 ; temp. 56·34
Redruth and Gwennap	depth. 24 ; temp. 52·16	depth. 74 ; temp. 54·66	depth. 124 ; temp. 56·66	depth. 174 ; temp. 58·66	depth. 224 ; temp. 60·66	depth. 124 ; temp. 56·34
St. Agnes	depth. 24 ; temp. 52·16	depth. 74 ; temp. 54·66*	depth. 124 ; temp. 56·66*	depth. 174 ; temp. 58·66*	depth. 224 ; temp. 60·66*	depth. 124 ; temp. 56·34*
St. Austell	depth. 24 ; temp. 52·16	depth. 74 ; temp. 54·66	depth. 124 ; temp. 56·66	depth. 174 ; temp. 58·66	depth. 224 ; temp. 60·66	depth. 124 ; temp. 56·34
Callington and Tavistock	depth. 24 ; temp. 54·00	depth. 74 ; temp. 56·00	depth. 124 ; temp. 58·00	depth. 174 ; temp. 60·00	depth. 224 ; temp. 62·00	depth. 124 ; temp. 58·00
Means.	depth. 24 ; temp. 52·30	depth. 74 ; temp. 54·69	depth. 124 ; temp. 56·69	depth. 174 ; temp. 58·69	depth. 224 ; temp. 60·69	depth. 124 ; temp. 56·47

* From single observations only.

TABLE II.

DENOTES THE MEAN TEMPERATURES AT DIFFERENT DEPTHS IN THE GRANITIC AND SLATY ROCKS.

Rocks.	Surface to 50 fathoms.	50 to 100.	100 to 150.	150 to 200.	200 and below	Means.
Granite	depth. 25 ; temp. 52·62	depth. 75 ; temp. 54·96	depth. 125 ; temp. 56·96	depth. 175 ; temp. 58·96	depth. 225 ; temp. 60·96	depth. 125 ; temp. 56·89
Slate	depth. 23 ; temp. 52·00	depth. 73 ; temp. 54·50	depth. 123 ; temp. 56·14	depth. 164 ; temp. 57·17	depth. 241 ; temp. 59·40	depth. 121 ; temp. 56·04
Means.	depth. 24 ; temp. 52·30	depth. 74 ; temp. 54·69	depth. 124 ; temp. 56·69	depth. 174 ; temp. 58·69	depth. 224 ; temp. 60·69	depth. 124 ; temp. 56·47

TABLE III.

THE DIFFERENCES BETWEEN THE TEMPERATURES OF THE VEINS (LODES) YIELDING DIFFERENT ORES, ARE SHOWN.

Lodes.	Surface to 50 fathoms.	50 to 100.	100 to 150.	150 to 200.	200 and below	Means.
Tin lodes	depth. 27 ; temp. 52·54	depth. 77 ; temp. 54·77	depth. 127 ; temp. 56·77	depth. 177 ; temp. 58·77	depth. 227 ; temp. 60·77	depth. 127 ; temp. 56·77
Lodes yielding both tin and copper ores	depth. 33 ; temp. 53·42	depth. 83 ; temp. 55·42	depth. 133 ; temp. 57·42	depth. 183 ; temp. 59·42	depth. 233 ; temp. 61·42	depth. 133 ; temp. 57·42
Copper lodes	depth. 26 ; temp. 52·25	depth. 76 ; temp. 54·50	depth. 126 ; temp. 56·50	depth. 176 ; temp. 58·50	depth. 226 ; temp. 60·50	depth. 126 ; temp. 56·50

* From four observations.

* From four observations only.

TABLE IV.

THE FOLLOWING COLUMNS EXHIBIT THE TEMPERATURES OF THE ROCKS, VEINS (LODES), AND CROSS VEINS (CROSS-COURSES AND FLUCCANS), AT DIFFERENT DEPTHS.

	100 to 200.	200 and below	Means.
Rocks.	depth. 150 ; temp. 58·00	depth. 200 ; temp. 60·00	depth. 150 ; temp. 58·00
Granite	depth. 150 ; temp. 58·00	depth. 200 ; temp. 60·00	depth. 150 ; temp. 58·00
Slate	depth. 150 ; temp. 58·00	depth. 200 ; temp. 60·00	depth. 150 ; temp. 58·00
Veins (lodes).	depth. 150 ; temp. 58·00	depth. 200 ; temp. 60·00	depth. 150 ; temp. 58·00
Tin lodes	depth. 150 ; temp. 58·00	depth. 200 ; temp. 60·00	depth. 150 ; temp. 58·00
Copper lodes	depth. 150 ; temp. 58·00	depth. 200 ; temp. 60·00	depth. 150 ; temp. 58·00
Cross veins (flucans).	depth. 150 ; temp. 58·00	depth. 200 ; temp. 60·00	depth. 150 ; temp. 58·00
Granite	depth. 150 ; temp. 58·00	depth. 200 ; temp. 60·00	depth. 150 ; temp. 58·00
Slate	depth. 150 ; temp. 58·00	depth. 200 ; temp. 60·00	depth. 150 ; temp. 58·00
Means.	depth. 150 ; temp. 58·00	depth. 200 ; temp. 60·00	depth. 150 ; temp. 58·00

* From two observations only.

1. It appears that different temperatures prevail at similar depths below the surface in the different districts; and that at all depths some tracts have a lower temperature than others. This leads to the conclusion that the isothermal lines underground do not coincide with the configuration of the surface. It scarcely seems probable that the different elevations of the surface, different districts may account for the whole of the observed differences; although they possibly may for some of them.

2. The general fact that the slate rocks possessed a higher temperature than the granitic mass at the same depth was ascertained by me, some years since,* but for a great while previously it had been suspected by practical miners. Table II. affords a most decisive confirmation of its truth; but proves that at great depths the mean difference in the temperatures of the respective rock formations, is much larger than had been before suspected.

3. It has from time immemorial been imagined that the temperatures of tin lodes were lower than those of copper lodes. Table III. shows the truth of this supposition, and that this difference prevails at all depths.

4. With but a single exception Table IV. proves that at all depths the rocks are warmer than either the lodes or cross veins. Whether this may arise from the more cellular structure of the veins, permitting the cooler surface water an easier passage downward than the rocks afford; or whether it be due to some other cause, is not the object of this communication to discuss. This general fact is at variance with the opinions now current; but it is disclosed by too large a series of observation to admit of doubt.

A curious circumstance has come to light in the course of these inquiries. On examining the temperature of the same spot at different times, first when it was the deepest part of the mine, and afterwards when deeper workings had been extended beneath it, it was found that the temperature had declined in the interval. Whether this was occasioned by the deeper levels intercepting the warmer water rising from beneath, whilst this level still received that coming from above, or whether some other cause may have occasioned this difference is certainly a curious inquiry; but as I do not wish to entangle the subject with theoretical discussions, I forbear following it further. Local causes undoubtedly modify general laws in many instances; the subject of subterranean temperature forms no exception to this; for such influences are often conspicuous; sometimes they elevate, and at others they depress the temperature; the general fact of a progressive increase of temperature as we descend, is, however, confirmed by every observation; I respectfully submit this communication to the Royal Institution, and as it contains the results of 386 observations, I hope I am guilty of no undue confidence in claiming some consideration for the accuracy of conclusions drawn from so large a collection of facts.

* *Report of the British Association*, for 1839.

COAL-FIELDS OF GREAT BRITAIN.—No. VII.*

[Continued from Journal of 8th inst.]

UNDER-COAL SERIES.

36. COAL.—This bed is called Baxter's coal, at Gilmerton, where it measures two feet in thickness, and lies about three fathoms below the third limestone; at other places the distance varies from three to six and a half fathoms. At Woolmet and Niddry the thickness is three feet, but two feet may be considered as the usual measurement; at Cowden, however, it is only six inches, and at Stobhill thirteen inches thick; at Preston pit, where it is the upper coal, the thickness is ten inches only. It occurs at all the following places:—Duddingston over Brunstein, Niddry, Gilmerton, Cowden, Loanhead, Woolmet, Walliford, Bryant's, Arniston, Stobhill, Preston pit.

37. COAL.—This coal lies often about four fathoms below No. 36; but at Bryant's the distance is five fathoms; at Preston Grange it is twelve fathoms. It occurs in the same collieries as No. 36. At Loanhead it is five feet thick; at Niddry and Woolmet, three feet; and in the other places generally about two and a half feet.

38. COAL.—The distance between this coal and No. 37 varies from two and a half to fourteen and a half fathoms; the latter distance, however, occurs at Niddry only; in other places it never exceeds five fathoms. At Niddry and Dryden it is three feet thick; at Cowden and New Mills level two feet and a quarter; and at other localities, two feet and under; at Arniston it is only six inches. It occurs near the surface at the Sandy quarry of Tranent, where it measures eighteen inches.

39. COAL.—This coal varies in its distance from the seam immediately above it, from one to eight fathoms, and the thickness varies from one to three feet. It attains the latter thickness, however, at Cowden, Loanhead, and Bryant's; at New Mills level it is two and a half feet; and at Niddry, Woolmet, Arniston, and Blinkbonny, two feet; at Gilmerton, one foot four inches; and at Duddingston, only twelve inches.

40. COAL.—This is called the Great Seam. Its distance from No. 39, at Bryant's and Cowden, is ten fathoms; in other places it is much less. The following are the places where its thickness is ascertained:—Gilmerton, West Windy-gowl, and Elphinston, ten feet; East Windy-gowl (twenty inch seam), Sandy Quarry at Tranent, Walliford Cowden, nine to ten feet; Niddry Cowden, Woolmet, Drum, Loanhead, Preston Grange, Bryant's, New Mills level, Preston pit, eight to nine feet; Joppa, Cowland, Stobhill, seven to eight feet; Bryant's and Blinkbonny, six to seven feet; and at Vogrie, four feet only. This is one of the most important coal-beds in the series; and, extending over a great extent of country, exhibits in a very striking manner the great mineral wealth of the district. Its almost universal thickness tends to render it a very important point in the stratification for determining what coal-beds may be expected beneath it.

41. THE PARROT COAL.—This is a thin seam of parrot, or cannel, coal, measuring from a foot to eighteen inches, and lying from fourteen to twenty feet below the Great Seam at Gilmerton and New Mills.

42. COAL.—At Gilmerton, Drum, Woolmet, and Niddry, this seam is known by the name of the Stairhead coal; at Tranent, and many other places, it is called the splint coal. It occurs at all the places enumerated in No. 40. At Tranent, Windy-gowl, Walliford, Elphinston, and Blindwells, it is from five to six feet thick; at Niddry, Woolmet, and Drum, it is four and a half feet; at Loanhead, Dryden, and Carberry, three and three and a half feet; at Cowden, Vogrie, Arniston, Blinkbonny, it measures from two to three feet. The distance varies from six to fourteen fathoms.

43. This, like No. 42, is known by different names, such as the Great Gillespie, Charlie, and Parrot. The distance from the seam above it varies greatly, the least being nine feet, and the greatest eleven fathoms. At Niddry, Drum, Cowden, and Stobhill, it is about four feet; at Woolmet, New Mills level, and Bryant's, it is from three to four feet; at Loanhead, Dryden, and Carberry, it is two feet; Elphinston, two and a half feet; at Tranent, Blindwells, and Penicaitland, it is less than two feet; at Penicaitland it is only one foot, and forms the upper coal.

44. MOFFAT'S COAL is the next seam in the descending scale. It averages about three feet in thickness, and the distance is from sixteen feet to six and a half fathoms.

45. COAL.—This is known by the names of Gillespie's, the Four Feet, the Small, and the Blackbird coal. It varies from two to five feet in thickness, and is situated from two to eight fathoms below No. 44. At Gilmerton it is five feet nine inches in one pit (Marshall's), and in Ainslie's only one foot thick; at Sandy Quarry, it is five feet four inches; at Niddry and Cowden, it measures four feet; and from three to four feet at Woodhall, Loanhead, Dryden, Elphinston, Penicaitland, and Huntlaw; at Penstone, the upper coal is five feet thick.

46. This coal lies from two to six or eight fathoms below the last mentioned. At Loanhead it is five feet thick, but in other localities it is only one foot, or less.

47. COAL.—This seam is known at different places by the following names:—Black Chapelhill, Upper Coal, Prattie, Chapel, and Carnation. The distance varies from four to ten or twelve fathoms. At Niddry, it is twelve feet thick; at Gilmerton, three feet three, and seven feet; at Loanhead and Dryden, five feet; at Stobhill, four and a half feet; at Bryant's, four feet; Preston Grange and Blinkbonny, three and a half feet; and at Brunstain Muir, two and a half feet.

48. COAL.—This coal lies at eight, three, and one fathom below No. 47. At Niddry, it is three feet; at Gilmerton, two feet nine inches, and two feet two inches; at Loanhead, two feet two inches; at Preston Grange, twenty inches; and at Stobhill, and Brunstain Muir, it is only twelve and fifteen inches thick.

49. COAL, known by the names of Little Gillespie, Lower Coal, Prattie, and Mac Gechie's. At Stobhill, it is three feet three inches thick; at Niddry, two feet seven inches; at Woolmet, two feet; and at Preston Grange, eighteen inches.

50. COAL.—The Corbie Craig, or Kettle Purse, coal, lies about five or six fathoms below No. 49. At Duddingston, it is five feet thick; at Niddry, five and three feet; at Bryant's, Loanhead, Woolmet, and Stobhill, three feet; at Gilmerton, two feet two inches; and at Preston Grange, two and a half feet.

51. COAL.—Called the Stinkie, Peacock, or Diamond, coal. It lies from ten to nineteen or twenty fathoms lower than No. 50. At Loanhead and Dryden, it is five feet thick; at Gilmerton, four feet; at Woolmet, three feet; at Duddingston, Niddry, and Glencorse, two feet nine inches; at Fuffet, two feet four; and at Arniston, sixteen inches.

52. COAL.—This seam is known by the names of the Little Splint, Rough, or Smithy, coal. At Sandy Quarry, it is four feet eight inches thick; at Elphinston, four feet four inches; Woolmet, three and four feet; Cowland, four feet; at Niddry, Loanhead, and Dryden, three feet; Fuffet, two feet eight inches; Fogget, two feet four inches; and at other places it is eighteen inches or less. It is three or four fathoms below No. 51.

53. GLASS COAL.—This seam lies about from two and a half to four and a half fathoms below No. 52. At Loanhead, it is three feet; at Dryden, three and a half feet; and Preston Grange and Arniston, one foot and a half thick.

54. BROWN'S COAL.—This seam occurs five or six fathoms below the Glass Coal. At Loanhead and Dryden, it measures two and a half feet in thickness; at Niddry and Gilmerton, it is only two feet; while at Brunstain Muir, the thickness is only eight and twelve inches.

55. COAL.—This is a very important coal, and lies at a very short distance below Brown's Coal. It measures from four to five feet. At Duddingston, Niddry, Langton Quarry, Loanhead, Blinkbonny, Dryden, and Preston Grange, five and a half feet; at Arniston, Woolmet, Gilmerton, and Cowland, three and a half feet; and from two to three feet at Drum, Penicaitland, Fuffet, Cockmuir, Penicaitland, Huntlaw, and Prestonhall.

(To be continued in an early Number.)

* Continued in the *Mining Journal* from the Gazette Practical Sections.

BANKS'S IMPROVEMENTS IN RAILWAY WHEELS.

The improvements in the construction of Banks's patent railway wheels consist, in the first place, of turning a groove entirely round the rim, or periphery, of the wheel, into which is inserted a hoop, bar, or segments of steel, or other hard metal, thereby producing a great permanent saving in the wear and tear. A variety of trials have been made to the entire satisfaction of engineers and other scientific men, particularly on the Manchester and Leeds Railway, where more than 100 pairs of wheels have had their tires repaired on Mr. Banks's plan. One pair of old wheels so repaired was tested with a pair of the best new wheels (of ordinary construction), under a first-class carriage, with break, which wheels required turning up after running 16,000 miles, but those steeled on Banks's plan were but little worn after running 50,000 miles—the same wheels are still at work, and it is expected will complete 100,000 miles, or double the distance, before they require to be re-steeled. The company, indeed, are so perfectly satisfied with the superiority of the patented plan, that they have since given Mr. Banks orders to have all their sound wheels steeled, or fitted up in a similar manner, as they may require it. About thirty pair of locomotive-engine driving-wheels have already been repaired on this plan, the tires of which were so worn, that, but for the application of the steel segments, they must have been replaced with new tires, at more than three times the cost of the repairs under Mr. Banks's patent, while, at the same time, a considerable advantage is gained from their increased durability over the best tires hitherto used. A leading feature of this improvement is its peculiar adaptation to the repair of old wheels, or that the tires of old wheels may be steeled upon this plan, and, when worn, can be easily taken out, and replaced with new, from time to time, so long as the general fabric of the wheel is sufficiently firm for use. The great value will be manifest, when it is borne in mind, that the same wheels may be renewed with fresh steel, as often as worn out, at a trifling expense, compared with new wheels.

It may be observed, that, heretofore, it has been found, in railway practice, many wheels have failed before the tires were half worn out, through the spokes coming loose in the nave; this defect and loss, however, will be prevented by the application of the other part of Mr. Banks's patent, which consists in welding, or otherwise attaching the arms, or spokes, to a centre ring, previously to casting the boss around the ends of such arms and ring, thereby giving the greatest possible strength and durability to the wheels. It is stated that there are, at least, 40,000 sets of railway wheels now at work in this country, which have cost not less than 1,000,000*l.*, if so, then, allow as much as five years for the durability of the wheels now in use, the application of Mr. Banks's patent generally will more than double the durability—thus causing a saving to the shareholders of this kingdom of at least 200,000*l.* per annum.

ORIGINAL CORRESPONDENCE.

THE SMOKE NUISANCE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Observing in your valuable Journal a good deal of controversy between several gentlemen as to the merits of different schemes for preventing smoke, I have been induced to pay some little attention to the subject, but more particularly a few days since, when staying in Lancaster, where I had the opportunity and gratification of inspecting a very simple yet effectual mode, adopted by Messrs. Satterthwaite and Barrow, at their cotton works, Queen's Mill, Lancaster, for the consumption of smoke *without any addition of air or steam* more than is used in ordinary furnaces. I was informed that it also effected a considerable saving of fuel—as formerly it required about twenty-nine tons per week of the best slack from my collieries to keep up the steam required by the engine, but since the introduction of the alteration twenty-two tons per week generates as much steam as twenty-nine did previously.

To explain the subject more fully, fig. 1 in the enclosed sketch represents the common boiler and furnace as it was before the alteration; fig. 2 is the boiler and furnace as it now is, with the alteration for consuming smoke.

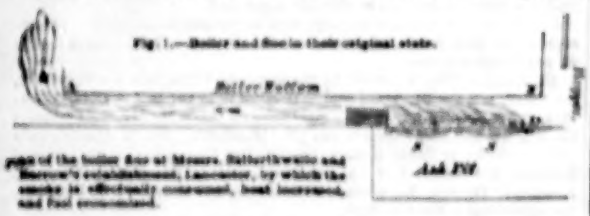
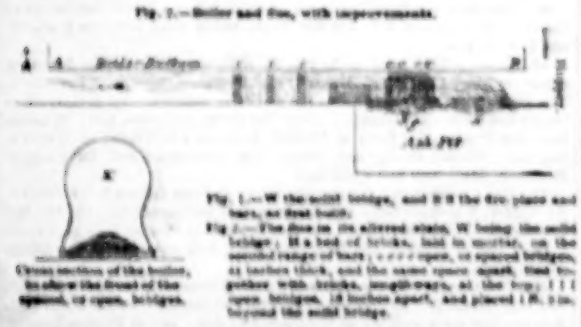


Fig. 1.—Boiler and fire in their original state.

Fig. 2.—Boiler and fire, with improvements.



Cross section of the boiler, to show the front of the upper, or open, bridges.

Fig. 1.—W the solid bridge, and D E the fire place and bars, as first built.

Fig. 2.—The fire as the altered state, W being the solid bridge; H a bed of bricks, laid in mortar, on the second range of bars; *o o o o* open, or spaced bridges, six inches thick, and the same space apart, that together with bricks, single-ways, at the top; I I I open bridges, 18 inches apart, and placed 18 in. beyond the solid bridge.

On reference you will perceive by the section, fig. 1, that there are two lengths of fire-bars, each being four feet three inches long, and marked *o o*; in fig. 2 it will be seen that the fire-bars are also laboured *o o f*; it will further be seen that the set *o f* is covered over with fire brick, so as to prevent the air getting in, and that upon this brickwork, H, there are four bridges, *o o o o*, erected so as to touch the boiler bottom at the sides, yet having a small space between the top of the bridge and the centre of the bottom of the boiler. These four bridges are a brick's breadth, or four and a half inches in thickness, with four and a half inches of space between each bridge; each bridge is left full of holes four and a half inches wide, as exhibited in the cross section, K. Besides this series of open bridges placed before the solid bridge, W, there is another series of three placed one foot nine inches beyond the bridge W, and lettered I I I; these are also open.

This arrangement constitutes all that is necessary for the ignition and destruction of the smoke, which is effected, as will be seen on reference to fig. 2, in the most simple manner, thus:—The coal or slack being ignited on the grate, the flame and smoke are impelled by the draft over and through the four first open bridges, which, soon becoming red hot, carbonise the smoke which is entangled and retarded in its progress by them; escaped from these first obstacles, it crosses the solid bridge, W, and is again submitted to a like process while endeavouring to pass the remaining open bridges, I I I, by which so completely is it destroyed, that nothing remains to pass through the fine but sulphureted and other chemical vapours. It is of course to be borne in mind that for a very short time at first lighting the fires, and until the bridges are heated, there will be a small escape of smoke; but after that, the clack being regularly delivered from the hopper, it comes altogether—the furnace doors being kept closed.

Should you deem the above notice and diagrams worthy of public observation, I shall, as a subscriber to your Journal, feel obliged by their insertion. In the furnace I have nothing to add, more than that it is accessible, is in operation, and fully answers every wish and expectation as to the saving of fuel and the getting rid of volumes of smothering smoke.

Messrs. Satterthwaite and Barrow will allow any gentlemen to see their furnace in operation. JOHN DARLINGTON.

Railway Colliery, near Chorley, Lancashire, April 21.

[This subject, although nearly worn out, possesses so much interest, more especially where any improvement is suggested, that we most readily afford space to the communication of our correspondent.]

COMBUSTION OF SMOKE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I have long diligently perused the columns of your valuable Journal, particularly during the animated discussion of the scientific interested individuals, thinking to get some information with respect to the combustion of smoke, and consequent consumption of fuel; but for anything that has been elicited I confess I am just as ignorant as when it began; therefore, Mr. *Editor*, if I be not intruding too much on your columns, you will do me a particular favour by inserting the following queries to those who advocate the admission of air at or behind the bridges, as it may tend to enlighten me and dispel my ignorance, and likewise satisfy the doubts of a great many individuals who might be willing to adopt their plans, could they only see through the mystery plainly. I am told by the "smoke doctors" that they have practically and chemically taken it into consideration; therefore I, with your permission, will ask them:—

First.—Can any of them let me know, practically, how many cubic feet of atmospheric air passes through the incandescent fuel on the grate of a furnace on the old construction (that is, a non-smoke burner or smoke preventer), and how many cubic feet ought to pass during the combustion of a ton of bituminous coal?—as I am one of those who believe that enough of air passes through the fuel for complete combustion of all the gases, if the furnace be properly fired and flues properly constructed.

Secondly.—Will they do me the favour, chemically, to let me know how many cubic feet of aerial products of combustion passes off from a furnace of the old construction during the combustion of a ton of bituminous coal, and how many cubic feet ought to pass when combustion is complete?—as, so far as I know, or have heard, chemistry admits of no *change*; its laws are fixed and definite; therefore, the admission of an undefined quantity of air behind the bridge must be an absurdity, where the quantity deficient is not known; and, until the quantity deficient is known, smoke burning or preventing, by the admission of an indefinite quantity of hot or cold air is a fallacy, and in nine cases out of ten a failure.

Lastly.—Will they be kind enough to inform me by what data or instrument they find the quantity of aerial products of the combustion of a ton of bituminous coal?—as a satisfactory answer to these queries may go far to dispel the doubts of a great many of the owners of smoky chimnies, and others concerned in the smoke nuisance; further, I am afraid, from what I have lately seen, that firemen require to learn to fire for smoke burning, as well as for non-smoke burning—from which, I suspect, the fireman is the best smoke burner, and, consequently, the greatest saver of fuel, as I always found it in practice. T. SMITH.

Birkenhead, April 24.

[We doubt not but that Mr. C. W. Williams, Mr. S. Hall, or other parties, who have taken so warm an interest in the subject, will reply to our correspondent. Where is Mr. Chanter?—Echo answers, where?]

CARN BREA MINES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Your strictures in your Journal of 22d inst. appear somewhat inconsistent with the silence which you have so long observed, and which you gave us to understand, in an article written some time since, should continue until the committee of investigation should have made their report. I, for one, can only regret that you did not strictly adhere to that intention; for, by anticipating the report of the committee, you not only do an injustice to parties, but render their duties of a far more irksome nature than those imposed on them by the circumstances of the case. I regret, in common with you, that the report should not have been rendered ere this, but when you consider that the gentlemen appointed reside in various districts, and that they have other vocations which call upon their time, I think that those very circumstances palliate the apparent lengthened delay; and, moreover, from a knowledge of the parties, I feel satisfied that it is their anxious desire well to consider their report, and not, as in many instances, which I could name, bring forward a crude production, which would neither be beneficial to the interests of the adventurers, honest towards the accused, or creditable to themselves. With respect to the proposed meeting of the 9th of May, I think if you inquire in the proper quarter, you will learn that such will, in all probability, be adjourned. I feel confident that I am only expressing the opinions of all interested, that the committee is formed of men of too honourable minds to wish unnecessary delay to take place, or to allow their opinions to be warped by prejudice, or unfounded assertion. The reinstatement of Capt. Joseph Lyle by the committee of management you will find calculated to be productive of benefit to the concern, for those gentlemen can have but one object. You will remember that in this, as in other matters, there are two sides of the question, and that "one story is good until the other is told." AN OUT-ADVENTURER.

London, April 26.

[The latter of our correspondent is temperate, and, as such, well deserving attention. As to the reappointment of Capt. Joseph Lyle, such may be, at least, allowed as matter of opinion.]

THE AERIEL STEAM-CARRIAGE.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—The foot note appended to my communication in the last number of your Journal has induced me again to address you on this subject.

I did not in my letter refer to any *known* improvements, as your note seems to imply, nor am I prepared to suggest any. I merely surmised that they would be consequent on the partial success of this invention. I never heard of any new discovery in mechanics being brought to perfection on its first outset; it is generally by slow degrees and long experience that it is attained; and I am quite satisfied that any important modifications or improvements in Mr. Henson's machine will be perfected by time and experience alone. The principle of the aerial carriage is somewhat similar to that of the well known Australian boomerang, which, being thrown into the air in an horizontal direction, has the singular property of returning, when the propelling power is expended, with a retrograde motion far behind the thrower; could this force be generated in the instrument it would continue to progress in the air as long as the force was applied, it having no tendency to fall to the earth in a perpendicular direction. I can see no reason to adopt Mr. Dunbavand's rule, that "it is naturally impossible to continue the flight of a projectile." The only difficulty to be overcome is to produce a propelling power in the machine itself, and this is to be accomplished in Mr. Henson's design by the vanes or propellers. It only remains, therefore, to be proved whether an adequate force can be produced by those means to enable the machine to ascend and continue its flight through the air. T. D. S.

April 23.

[We like this discussion, but should be better pleased with a practical illustration. We have to thank "T. D. S.," and court further information.]

FIRE DAMP.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—I cannot express my astonishment at the extraordinary verdict returned by the jury in the recent catastrophe near Newcastle-upon-Tyne, and believe I only share in the surprise of thousands. In the face of such evidence, such a verdict is altogether unaccountable, except on the supposition of some strange underhand influence being at work—"something more than meets the eye." I fear, too, Sir, in the present state of things, matters will continue on, and the sacrifice of human life pass unheeded, as in abundance. Some time ago, I proposed a very safe method of unpinching the "fire damp" in coal mines, by means of Smee's voltaic battery. It appeared in the *Times* newspaper, as well as the *Gateshead Observer*, and I believe you did me the favour to insert the proposed plan in the *Mining Journal*. Now, Sir, the mine where the accident in question occurred is an illustration in point. By the means proposed, that mine might have been effectually cleared of "fire damp," and twenty-seven human beings preserved alive!—"Consule quod non sorsum." However, I was attacked by an anonymous correspondent in the *Gateshead Observer*, as if I had propounded the plan for an extensive sum. Exceptions only establish the rule, and the rule remains intact. The efficacy and safety of the plan I proposed is successfully illustrated by an appeal to a case in point. Compare my proposal with the rude and questionable method propounded by Mr. Brown, of Old Ford, in No. 748 of the *Athenæum*—"Look on this picture, and on that."

April 26. J. MURRAY.

ACCIDENTS IN MINES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Your truly valuable Journal has ever been open to the suggestions of individuals for preventing accidents in mines from foul and explosive gases, and many and various are the plans that have, from time to time, been proposed; but of what avail, Sir, are these suggestions—of what utility are the labours of scientific men—if those who superintend the working of mines are incapacitated by ignorant hardihood of disposition, from want of education, or from want of humanity, from taking those necessary precautions, without which human ingenuity will avail them nothing. In the recent melancholy catastrophe, reported in your Journal of last week, there appears to be gross and culpable neglect of those common precautions necessary to insure safety to the men; the lamps were declared to be defective from the very beginning of the working, and the only man among the many who could be found discreet enough to know—and, therefore, to shun—the threatened danger, in the place of being rewarded, as he ought to have been, for giving timely warning, was mulcted of a portion of his small and well-merited earnings. Habitude, no doubt, makes the miner reckless and indifferent to the dangers constantly surrounding him, but this makes it the more necessary that well-educated and humane men should superintend their operations, awaken their minds to threatening dangers, and enforce those rules generally laid down for the prevention of accidents. Almost all the accidents produced by exploding gases originate in men being permitted to use candles, or from their rashly exposing the flame of the lamp; and, in the melancholy case before us, many wives have been in one moment bereft of their husbands, children of their fathers, because the mine was not properly supplied with lamps, candles being resorted to as a necessary consequence. I trust that—*mangre* the opinions of your practical mining correspondent, Mr. Deakin—the schoolmaster will find his way into the mines, and that he will teach these men, that, however little value they may attach to their own lives, or to the lives of those working with them, they have still duties which bind them to the earth as citizens, husbands, and fathers; moral duties, which, as Christians, they are bound to fulfil, and which teach them to avoid all unnecessary risk of being hurried into eternity. M. P. V.

Richmond, April 24.

VENTILATION OF MINES—PREVENTION OF ACCIDENTS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Your correspondent, Mr. J. Murray, tells us, in your last week's Journal, that choke damp, black damp, and after damp, of the miners, is carbonic acid gas of modern chemistry; it is (he says) sometimes developed naturally in mines, and is the invariable product of an explosion of fire damp. As regards the choke, or black damp (*for I know not how to separate the one from the other*), nothing can be more erroneous, *for* that damp will not fire at all, nor will any fire burn in it; the reason is, it is generated in confined places, where no draft of atmospheric air can penetrate to it, and no person ought to go into it, where a candle will not burn. The fire damp is well known to be another thing; it is a gas produced in the earth in coal mines, more especially, but often in ironstone mines also; a candle burns freely in the quick gas of a coal mine, and gas, whilst in a quick state, rises to the roof of the mine, because it is lighter than common air, but after an explosion, and the gas is burned, it becomes heavier than common air, and falls on the bottom of the mine, and is destructive to human life. Hence so many lives have been lost by explosions in mines that have not been burned at all. When a heavy fire takes place in a mine, the workmen that happen to be inside the gas after it is burned, and the draft of air going through the burned gas towards them, and they have no way of escape through the air way before it, their doom is generally sealed, but those that are on the other side the burnt gas (that is, to windward of it) have every chance for escaping. I was witness of a case in point; it was in a pit where all the workmen had left work, and gone out of the pit, except three little boys, and one of those boys fired the gas in the pit, and a most dreadful explosion was the consequence; it shook the neighbouring town, and the report was heard to a great distance round the top of the pit. The whole of the horses in the pit were burnt to death, and no one supposed but that the little fellows had lost their lives too. Now, the case was this; the pit the boys were in was the upcast pit, and they fired the gas at the inner end of it—therefore, when the explosion took place, the fire was carried with the draft from thence towards the pit shaft; the boys were left without light, and many hundreds of yards of burnt gas between them and the pit bottom, which, to attempt to go through, they knew would be certain death. They had a very intricate air way more than a mile in length, that led to the downcast pit, and the boys having no light, made it much more difficult for them to find their way; other old ways and old workings led out of the air way, but, when they were at a loss which way to take, they made it a point to all stand together, and proved the way the draft came towards them strongest, and invariably followed the strongest draft, and between five and six hours after the explosion the boys came out safe, and such was the effect of that explosion that the pit was under the necessity of being stopped up, to smother the fire stink, for many months; and, when it was opened again, I saw the putrid carcasses of the horses put out, and the pit was loathsome to work in for a length of time after. The reason why I relate this story is, to show the necessity of keeping the air ways perfect in a fiery mine, because they are the only safe dependence to such a coal mine, when the miner can go in at one pit and out at another at any time. If an explosion should take place, it gives him a chance for his life, and such air ways are the best preventatives against having very large explosions at all.

But, to Mr. Murray again. He says, in the former case—I suppose he means the black, or choke damp—were it allowed to flow along a channel provided for it, which it would do (says he), in virtue of its superior specific gravity, into a tank, and it might be easily pumped out like water by an engine. Now, can Mr. Murray be serious, when he talks of black damp running in a gutter, and being pumped out like water. Can he suppose that we miners are actually more ignorant than even the schoolmen are in the habit of representing us to be? No, no, Mr. Murray, not get rid of black damp that way; it must be taken from the mine the same as the fire damp, by good ventilation. Then Mr. Murray says, cold water should be forced by a small forcing pump, through a rose, by individuals, in their approach to men that are smothered in burnt gas, or, as he calls it, after damp. Where is the man that one time out of fifty could live to approach them in time to save their lives, after such explosions as coal mines are subject to; and, I think, upon reflection, Mr. Murray must be aware, that dead men cannot pump water any more than they can tell tales.

Mr. Editor, the Stormont Main Colliery explosion is a melancholy affair. I shall not make any comments; you have said enough on the subject in the last week's Journal. The man that went out of the pit when he saw danger acted wisely, and I would advise every coal miner to do the same. The miner should always tell his overlooker something like the following:—I shall expect you to make me a comparative safe place from fire damp to work in, or I must go out of the pit. THOMAS DEAKIN.

Blaydon, April 21.

THE THAMES TUNNEL.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In common with every one who has walked under the Thames, I have admired the skill and perseverance which has led to the completion of so noble a work as the tunnel. It cannot, however, be a matter of indifference to its numerous visitors and passengers, that some efficient means of ventilation should be adopted, the heat and closeness of the atmosphere being painfully oppressive. It only requires that the attention of its highly-talented engineer, Sir M. I. Brunel, should be directed to the existence of such to evil, to insure the application of its remedy, and provide a comfortable, as well as a safe and economical, communication. MINERAL.

Brixton, April 27.

"DUFF" OR SMALL COAL.

TO THE EDITOR OF THE NORTHERN TIMES.

SIR,—Reference having been made by you to a method lately discovered of rendering "duff," or small coal, available for combustion as fuel, I beg to state that it has for some weeks been known to several of my friends, that I have been enabled to make a very lively and agreeable fire of duff coal in my own house—hence I conjecture that this discovery has been hinted at to you by some of your friends. It may be needful to mention that several years ago I performed a series of expensive experiments upon this subject, and accomplished that which was by many persons considered as a desideratum—viz., the solidifying of duff, or culm—but when I calculated the expense, I found (as our neighbours have it) that "the game was not worth the candle," or, in other words, the expense was so considerable, that the profit would thereby be absorbed. Reflecting that the duff is formed of the purest part of the coal, taken from the best coal seams, it struck me that if I could render common strong brown paper, to a certain degree, incombustible, I might, within a small ready-made dry bag of this description, include a portion of the duff coal, which, when placed upon a ready-made fire, would become ignited, and in that position, give out gradually a clear flame, and be kept up for any length of time. For this purpose I tried saturated solutions of a variety of salts, and having, with such solutions, sufficiently moistened brown paper, and having it afterwards carefully dried, I submitted the duff to trials to parents by the agency of such paper. I need not detail the results for the same reason that I considered it unnecessary to detail the processes by which the duff was solidified, more especially as such processes are of no value, compared to the successful plan which I ultimately adopted. I found that the common muriate of ammonia (hydrochlorate of ammonia of chemists) answers the purpose admirably, and which I employed in the following manner:—Dissolve one ounce of the above-named salt in twenty ounces of com-

mon water, which will serve to moisten a quire of the largest strong brown paper, such as is manufactured by Messrs. Hutton, in our vicinity, which is excellent in quality, and very moderate in price. As soon as this paper is carefully dried in the sun, or before a fire, it may be cut into pieces suitable for forming parcels—say about the size of a pound of brown sugar—taking care that the duff be not moist; and, for convenience, I use pack thread, which I render incombustible to a considerable extent by the agency of the above-mentioned solution. Half a dozen of such parcels will make a fire which may be burnt in a couple of hours, or by bunbanding it, the fire may be made to last for six or eight hours. The muriate of ammonia may, in retail, be had at a penny an ounce—perhaps, if from the manufacturers, it would cost half that sum. Any coalowner, who may desire it, may see specimens at my house, and also the very agreeable fire they make. The cinders from this fuel are perhaps the finest ever seen, as the caking process is perfect, and the coal of the finest quality. Muriate of ammonia is now greatly reduced in price, and I am informed it is manufactured in large quantities at the different gas-works. The fires from the duff coal, such as described above, give out no noxious gases, nor any effluvia.

W. Reid Clanny, M.D.

Bishopwearmouth, April 17.

P.S.—A few weeks ago I transmitted to two of my personal friends (who are greatly distinguished in the walks of practical science) abundant specimens of my duff coal, and I have much pleasure in stating that both these gentlemen, by letter, gave the process and the fuel their unqualified approbation, couched in highly complimentary language.

ON THE VENTILATION OF MINES.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—I presume your correspondent, "A Constant Reader," feels the subject matter on ventilation of mines, in my letter to your Journal a week or two back—I say, he feels it rather more seriously than he likes to acknowledge. Perhaps he knows his duty on ventilation of mines; but, for reasons best known to himself, and suspected by me, he would rather not do it—namely, money matters. But here I beg leave to make one remark, and that is this—the cheapest way in the end, by far, is, to carry his air-ways as he does his horse-ways, from the commencement of a mine, in the safest and most perfect manner; taking quite as much care of one as the other. He inquires how air-ways are to be made tight through wastes and old workings? I ask him, how he carries his horse-ways in the progress of his workings? He can make his air-ways as perfect as his horse-ways, if he will go to the same expense in each, and get all the coal much better, and would always have a current of air at his command; but when it is suffered to spread about old works and open wastes, he cannot collect it, and use it where it is most wanted. He quibbles at another part of my letter on the subject, where he says, "are we to understand that the air drives the gas before it?" I thought it did not matter much whether the air drove it before it or mixed with it, so that the air cleared the mine of gas; and he knows (if there is any practice about him) that a well ventilated mine will be safe from gas. He again quibbles at my saying, that the use of the Davy lamp to work by is the abuse of it; and indeed I do say so. He knows, if he manages miners, that the lamp (Davy, or anything else of the sort) must stand or hang upright to work by it—but it is a miserable light to work by. Well, we will suppose the colliery to be in an inflammable state, that the lamps are full of gas all in a flame, and if a sudden gust of air comes in contact with those lamps, and forces ever so small a portion of flame through the wire gauze, it is all up—the deed is done. He talks of widows; that is the way widows are made, and fatherless children, too. But again to the lamp; suppose it is knocked down by some accident, the same effects must follow, and more especially if the lamp is suddenly by accident broken. Now, I do seriously ask any rational man if any extensive mine, where, perhaps, more than one hundred lamps are in use daily, and any one of those lamps, by neglect, or accident, or any cause whatever, admits of one half-inch of flame to escape through the net-work, at a time when a mine is in an inflammable state, will spread such ruin? I seriously ask, if it is not the abuse of the Davy lamp to work by them? Then he quibbles again about my saying the air-pit of a mine should be as large as the working-pit; and, indeed, why should it not?—there is the same current and quantity of air going up the one as down the other.

It is a matter of doubt to me whether the same system of working coals may not be used in the north of England that is used in Shropshire, and in the Staffordshire thin coals—namely, long work. The present mode in the north is what is called stall and pillar working—that is, each man takes out a narrow piece of coal between two pillars, and his next neighbours on each side of him do the same, and so on through the whole extent of the mine. It is very inconvenient to convey air into those numerous workings, and to keep the air close up to the collier; the custom is to cut across the pillars of coal from one work-place to another (and that must be frequently done, as the men in each work advances on), and place doors on each work-place to force the air forward across the working from one stall to another, and also frequent bratticing up old air ways; these numerous doors may close very well, but the necessity of frequently opening them causes a great waste of air, that the current, by the time it gets to the extremity of the mine, is very feeble, and there is generally the greatest danger. Long work, as it is conducted in Shropshire, is done so. The whole of the coal is taken out—often hundreds of yards in width—in one grand sweep, and horse-roads carried after the workings through the worked space, always taking care to build up those roadsides very carefully, to secure the roads; and the roads are carried at convenient distances from each other, as convenience may require to take the coal out through them (the ironstone there is worked exactly the same way); and doors are placed in those middle roads, to force the air through the end roads and along the whole open face of the coal, and out through the end road leading to the draft pit; and sometimes in Shropshire two pits go together, both the workings of the pits abreast, and this is better still; the air crosses the workings in both pits, and the one airs the other, which spares the expense of carrying an air-way. I beg leave to tell "A Constant Reader" that that is the way to get at the coal, and get it safe, too. I am well convinced that I have seen as fiery veins of coal in Shropshire as ever there were in the north of England, but I never saw such destruction of human life there as takes place in the northern collieries, and I know, from the different modes of work in the two districts, that there never will be such extensive misfortunes happen in the one as is continually happening in the other. Your correspondent, "A Constant Reader," may say, "Oh, but our collieries in the north will not admit of being worked in long work." If he should make such an observation, I will tell him that I never saw a vein of coal in the whole course of my practice—and it has been a long practice—that would not admit of being worked in long work; and I will tell him, more than that, that long work is the cheapest mode of working coal. If he should say that the top is not strong enough in the north to allow of taking the whole of the coal away to such an extent as I have described, by long work, I do tell him that a very strong top is not the best top to work long work under, and a rock top is the very worst of all tops for working long work under.

Another correspondent of yours, who calls himself "A Traveller," in writing on rural rents, says that the scientific (at least, he hints at it, though in other words) should not commit themselves, and put in the power of such men as T. Deakin to question their authority. Now, Mr. Editor, if ever a merely scientific man attempts to go a few feet into the earth's stratum he immediately commits himself, and puts it in the power of a close observing practical man to question his authenticity; and, more than that, those merely scientific put words in the mouth of the other to prove it by.

I should be exceeding glad if practical miners would forward to your excellent and improving Journal some of the leading features of their mining operations; if something of that sort was more attended to by such a large class of mining managers as this inland produces—and I know many in this district who are well able to do it, and, doubtless, in the other districts of the kingdom, too, who are equally able to do so; for I do say, although few of them have received a college education, and none of them corporation certificates, there are not more skilful miners in the universe than this our own land produces—but, unfortunately for the public at large, and the miners themselves, it is not done; for these would learn more from practical men concerning the earth's formation than they can learn by travelling the earth's surface from beam to the antipodes, or by learning their lessons from books abounding with contradictions. But the scientific seem very angry that we miners will not believe their book knowledge. I can tell them that I have been reading a book, whose leaves are the earth's stratification, for nearly sixty years, and I have turned over as many of those leaves as most men; and I have found written on every leaf, in legible characters, the following words:—"From everlasting to everlasting my builder and maker was God."

I am called to an account frequently in your Journal, and am considered one of the most unscientific writers that ever took a pen in hand. So it so; I am satisfied with that; I never laid any claim to scientific honours. But which of all the scientific have overturned me of having advanced untruths, or shown one argument that I have advanced. Let those scientific gentlemen take care what they write in the columns of your Journal; for, if they advance nonsense, I, by your permission, shall refute them again and again.

I must make apologies for the length of this paper, but I trust you will see that the very confine of the subject required it.

T. Deakin.

Blenavon, April 26.

Mevock.—We hear that Great Wheal Alfred Mine, near Hayle, is about to be worked, after having been idle for sixteen years.—*Falmouth Packet.*

Stonehouses Iron Works.—A few days since, a poor fellow, named Fletcher, while employed in connection with the moulding operations at these works, was most grievously scalded by the bursting of a large ladle, filled with iron cooling, and he was killed on the spot.

The St. Hilda Pit, at South Shields, has stopped work in consequence of a part of the "mitch," of the reservoir giving way, and letting the water into the pit. The men were all got out in safety.

MINING CORRESPONDENCE.

ENGLISH MINES.

HOLMBUSH MINING COMPANY.

April 24.—In the 110 fathom level, west of Wall's shaft, the lode is from ten to twelve inches wide, worth 20*l.* per fathom. In the 100 fathom level west the lode is one foot wide, and worth 9*l.* per fathom. In the winze sinking below this level the lode is fourteen inches wide, and worth 22*l.* per fathom. In the 100 fathom level, east of Wall's shaft, and in the cross-cut south, towards the Flapjark lode, no alteration since last reported; in the cross-cut, north of Hitchins's shaft, at this level, we have discovered the lode; its size is not yet ascertained, as it is not cut through; it has a very promising appearance, and is now producing good stones of ore; the lode in the stopes in the back of this level is two feet wide, and worth 50*l.* per fathom. The eighty and ninety fathom levels are still progressing towards the lode in favourable ground. In the back of the ninety fathom level the lode in the eastern stopes is twenty inches wide, and worth 38*l.* per fathom; in the middle stopes the lode is two feet wide, and worth 45*l.* per fathom; and in the western stopes the lode is twenty inches wide, and worth 48*l.* per fathom. In the eighty fathom level, east of Wall's shaft, the lode is small and poor, and ground hard for driving; in the cross-cut, driving north, we have discovered the lode, and opened into it about ten inches wide, composed of capel, spar, and mundic; the lode in the stopes in the back of ditto is sixteen inches wide, and worth 25*l.* per fathom. In the sixty-two fathom level, east of Bray's shaft, the lode still continues small and poor. In the sixty-two and seventy fathom levels, west of Hitchins's shaft, there is no improvement since last reported. In the deep adit, east of Lady Ibeam shaft, the lode is sixteen inches wide, producing stones of ore.

T. Richards.

CORNUBIAN MINING COMPANY.

April 24.—The ground in the seventy fathom level is rather improved, but the lode is much the same as reported last week. The lode in the sixty fathom level is three feet wide, one foot rich in lead; we have not seen the north lode for the last twenty fathoms in driving, but, after holing Murray's shaft (which we shall perform in a week or ten days), we intend to cross-cut the ground, and shall then be enabled to communicate more particulars relative to this part of the mine. Murray's shaft is sunk nine fathoms below the fifty fathom level, on the south (or Chivertou) lode; we shall not stop to make any trial of the north lode until we communicate the shaft to the sixty fathom level. The parcel of lead (sixty-three tons) sold to Messrs. Walker, Parker, and Co., at 12*l.* 18*s.* 6*d.* per ton, on Saturday last, we shall commence to ship to-morrow.

J. Webb.

CALLINGTON MINING COMPANY.

April 24.—I beg leave to inform you since the engine commenced working on the 17th inst., we have not made that progress in forking the water as we anticipated. Much time has been taken up unexpectedly in repairing or bringing the engine into a perfect state of working, which is now completed, and I hope no further hinderance will occur. The twenty fathom level we expect will be in fork by to-morrow evening, should the engine be kept steadily to work, which we find is rather difficult to do, in consequence of her present burden being so very light; we are also preparing another lift to drop to the thirty. The shaft is cased and divided, ladders, &c., fixed as deep as the twenty. The foundation for the steam-whim is so far cleared out, that the masons will commence to-morrow in building the walls. The ground in Hurlditown adit is much the same—rather hard.

S. Harpur.

WEST WHEAL JEWEL MINING ASSOCIATION.

April 24.—The ground in Buckingham's engine-shaft, and also in the eighty-five cross cut south, is favourable. The seventy east on south branch was not taken down in the past week. The seventy west, on Wheal Jewel lode, is worth 25*l.* per fathom; we are now rising against a winze sinking from the level above, which will be holed in a week or two. The seventy east on this lode has not been taken down; we have resumed stoping in the back of this level; the lode is worth 25*l.* per fathom. In the seventy west, on the new lode, we have opened about one fathom; the lode is eighteen inches wide, prian, spar, and black and grey ore, and is a lode of great promise. The fifty-seven east, on Wheal Jewel lode, is worth 13*l.* per fathom.

Stephen Lean.

CONSOLIDATED TRETOIL MINING COMPANY.

April 24.—The lode in Heawood's shaft, sinking under the fifty fathom level, is one foot wide, producing a small quantity of ore. The lode in the fifty fathom level, east of Heawood's shaft, is one foot wide, producing some good ore. The lode in the fifty fathom level, west of Heawood's shaft, is six inches wide, producing a little ore. The lode in the forty fathom level, east of Heawood's shaft, is one foot wide, good tribute ground. The Blind Will's lode, at the adit level, east of Morcom's shaft, is much as last reported. The tin lode, in the back of the adit level, east of Morcom's shaft, is much as last reported. The tin lode, in the back of the seventeen fathom level, east of Morcom's shaft, is four feet wide, good tribute ground.

J. Morcom.

UNITED HILLS MINING COMPANY.

April 25.—In the seventy fathom level the lode in the eastern end is four and a half feet wide, two feet on the south part is producing ore of fair quality. In the western end the lode is three and a half feet wide, with some stones of ore. In the sixty fathom level, in the eastern end, the lode is from four to five feet wide, intersected with some good branches of ore, with a promising appearance. In the western end the lode is five feet wide, coarse in quality. In the fifty fathom level end the lode is three and a half feet wide, eighteen inches on the north part good ore. In James's shaft the lode is four feet wide, producing but little ore. In the forty fathom level the lode is three feet wide, producing a small quantity of ore. In the twenty fathom level (Wheal Sparrow) the lode is eighteen inches wide, six inches on the north part producing ore. In the adit level the lode is one foot wide, producing but very little ore.

W. Richards. N. Langdon. S. H. Pearce.

TRELEIGH CONSOLS MINING COMPANY.

April 23.—The eighty east of Christoe is one foot wide, with stones of ore. The eighty west is not yet on the lode. The winze under the seventy east is worth 7*l.* to 8*l.* per fathom. The seventy west is worth 5*l.* per fathom. The sixty east is four feet wide, mundic, spar, and some good ore; we expect an improvement soon. The sixty west is worth 4*l.* per fathom, and the lode improving again. At Good Fortune, the lode in the fifty west is two feet wide, producing good stones of ore; the back is tribute ground. The fifty east is worth 5*l.* per fathom. The forty four west is worth 6*l.* per fathom; and the thirty-four is worth 4*l.* per fathom.

W. Symons.

TREGULLAN MINING COMPANY.

April 17.—We are cutting through the lode at the sixty-two fathom level, east of Baker's shaft, which is composed of mundic, capel, and soft spar, with a small quantity of ore; it looks kindly at present, but is not worth saving. The under part of the lode in the winze, sinking under the fifty fathom level, east of Baker's shaft, is one foot wide, improved since my last report. We have cut through the lode west of the winze; its leader part, which is to the north, is about nine inches wide, producing some good ore. There is not much alteration in the tribute department since my last. We have sampled this day, computed thirty-four tons of ore.

H. Williams.

FOREIGN MINES.

ALTEN MINING ASSOCIATION.

Alten Copper Works, March 17.

Mines.	Number of men.	Estimated produce in tons of ore.	per cent.	Estimate in refined copper. Tons.
Raipas	56	100	7	7
Unl ed	16	100	5	5
Wilson's	36	67	9½	9 5-10
New lode (Ryper's)	4	5	6	0-10
	112	—		—
February workings	65	282		16 5-10

REPORT.

Raipas.—From the above estimate it will be seen that the expectation I held out in my last report, of an improvement in the produce of the Raipas Mine, in February, has not been disappointed; and the continued favourable appearance of the work ings edited reasonable hope of further increase for the present month. The following members of the workings in Raipas refer to the striking for March:—No. 1 (same stope as No. 1 of February).—The lode has undergone little or no change; it continues two and a half feet wide, producing rich purple ore. No. 2 (same as No. 2 in February).—The present appearance of the lode is somewhat less favourable; but as the ground is so constantly varying, we have reason to hope it will soon recover its former very promising appearance, and still form one of the best workings. No. 3 (same as No. 3 in February).—Without alteration. No. 4 (same as No. 4 in February).—Greatly improved, the lode being about four feet wide, containing rich yellow ore, and yields upwards of six tons per fathom. No. 5 (same as No. 7 in February).—This lode still continues small, but every promise of improvement. No. 6 (same as No. 6 in February).—A very promising lode, about two and a half feet wide, containing solid purple ore; and, although some what hard ground, not unfavourable for driving.

United Rines.—Since last report one fathom and one-eighteenth has been sunk in the western winze; but the workings have been suspended for the present month, for the reason stated in my letter of the 26th February. The stopes under the eighty fathom level are looking well; the lode continues about three fathoms wide, with every appearance of improvement as we advance eastward.

Wilson's.—The sink under the main level in the south lode is at present unproductive, but we may report a favourable change, as the south and north lodes intersect each other, which will be in all probability the case at about four fathoms below the main level. The stopes east of the winze are producing good ore. The cross vein at the surface is yielding about two and a half tons per fathom of 6 per cent. The sink under the main level in the eastern part of the mine has been suspended for this month, but will be resumed as soon as we have a sufficient number of hands. The produce of these lodes for March promises fair to exceed that of any former month.

New Lode, Ryper's.—The lode west of the original workings is about two feet wide, producing two tons per fathom of 5 per cent. The stopes on the south lode is two and a half feet in size, yielding one ton and a half per fathom of 6 per cent.

From the accompanying ore delivery note, you will see that we are not behind in our returns to the smelting house.

Statement of the deliveries of ore to the smelting house for the month of February:

	Tons.	Per cent.	Fine copper.
United Mine	56,467	3	1694
Wilson's, 1st dredge	13,397	15	2009
— 2nd ditto	13,930	6	1197
— 1st smalls	8,044	9	724
— 2nd ditto	10,409	4·12	431
— 2nd ditto	11,914	7·15	864
— gossan and edge	6,819	6·50	248
—	17,000	11	1979
Raipas, 1st dredge	23,536	8·50	1979
— 2nd ditto	8,967	5·25	469
— 1st smalls	10,448	4·57	474
— 2nd ditto	13,112	20	2629
— prills	5,405	3·75	203
Old Mine, 2nd dredge	17,000		1700
	222,287 tons.		17,399 tons

Alten Copper Works, March 21.

IMPERIAL BRAZILIAN MINING ASSOCIATION.

Gongo Soco, Feb. 2.—In the cross-cut south from the sixty-two fathom level a hard floor of ground has been met with (ironstone) about three feet in thickness; this has required blasting, and the end is now again in soft jacotinga, in which veins can be traced.

J. K. A. Caichetty.

Mining in Cornwall—*(From a correspondent).*—I yesterday inspected some mines in the parish of St. Just, amongst which was Botallack, where there are three important discoveries within a few days—viz., the sixty-five, eighty-five, and 125 fathom levels; these levels have hitherto been without ore, but, from the present appearances, they are likely to be very productive. There is also a slight improvement in Levant, but I cannot say much for the tin mines, owing to the price of tin, which must prove ruinous to many large tin mines. There is a great improvement also in Wheal Providence Mines, in Gwinear; three new pitches were set on Saturday last, at 6*d.*, 7*d.*, and 9*d.* in the 1*l.*

Mining in Ireland—*(From a correspondent).*—I trust that the British Association, who will visit our interesting country in August next, may, from their observations, awaken the minds of speculators in mines to come to Ireland, and they will find that more profits can be obtained by a small outlay than they will ever discover in foreign countries. I am satisfied that the western part of this county would be found rich in mineral wealth, and if one hundred-thousandth part of the capital which is used in Cornwall and foreign mines, was judiciously and economically applied in this county, it would not be found second to Cornwall, or the richest districts in England, exemplify the fact—indeed, the mere salary paid to the directors and agents of some of the mines in England would work several mines in this country, and yield to the adventurers ample profit.

Pen Park Hole, near Bristol.—*(From a correspondent).*—Much curiosity has been created in the neighbourhood of Bristol during the last few days, by the re opening of this remarkable hole, or mining cavern, under the direction of Capt. R. Rowe, of St. Agnes, by a party of Cornish miners. Having sunk from "grass" about four feet, a brick arch was passed through, opening into a cavity about twenty-three fathoms deep to the water, and thirty three fathoms to the bottom; extending thirty-eight fathoms long, and twenty-one fathoms wide; the pendant rocks are glazed with saltpetre and carbonate of lime, which time has petrified. Some very excellent specimens of lead ores were obtained, yielding nearly 75 per cent., which has led to further operations, with a view to the regular working of the lode, a Cornish company having been formed for that purpose; the survey could not be made till after the descent of a boat, by which assistance the manager and his men were enabled to traverse the waters of this extraordinary place. Much credit is due to the parties engaged, for their intrepidity, as from various reports, and, judging from what could be seen, much risk and danger awaited their proceedings. Mention is made of this hole in a Natural History of England, published by Benjamin Martin, in 1759 (vol. i., page 344), from which it appears the last openings were made in the years 1660 and 1683. The gentlemen engaged in this enterprise have our best wishes, and, from all that is said, they have a fair prospect of success.

The Iron Trade.—We learn, by the Hamburgh papers, that a petition has been presented to the Provincial Assembly at Königsberg, and unanimously approved by it, which asks for nothing less than that all foreign iron shall be entirely free from import duty. This clearly shows how in Parliamentary discussions the waste of some provinces are opposed by the contrary interests of others. Silesia and the Rhenish provinces are urgently calling for protection for the iron trade, which is greatly depressed. To do something for the encouragement of the important mines and forges, which supports so many thousand families in those provinces, is not only a subject to be maturely considered by the Government, but is the wish of all impartial persons. Public opinion was expressed very decidedly on this subject, some weeks ago, when a deputation from the owners of iron-works and smelting-houses in the Rhenish provinces was at Berlin. Among the means then proposed was to increase at least for a time the import duty on foreign iron. Thus the wishes of our western provinces are diametrically opposed to the Königsberg petition.

Coal at Toulon.—Some years ago, a society was formed in France, for the purpose of extending, for commercial purposes, geological inquiries with respect to coal. Several important discoveries have been made by the society, but the most recent and most interesting, is the fact that extensive seams of coal exist in the road of Toulon, in the vicinity of the Lemaigon fort—indeed, it was within the grounds of that fort that the agent of the society found the first indications of the submarine strata. The working of the coal, it is said, is to commence forthwith.—*Journal de Rouen.*

"The Great Muryon" Winning.—The South Hetton Company (Col. Braddyll and partners) have at length brought to a satisfactory conclusion their gigantic winning at Murton. The Hutton seam was sunk to on the 18th of April, at the depth of 346 fathoms, and found to be 8ft. feet in thickness—pure coal—equalling in every respect (say our correspondent) the famed "Braddyll's Wolf's End," which for some time past has been the leading coal in the London market. The coal-measures, which at this sinking are overlaid by eighty fathoms of magnesian limestone, contain eighteen seams of coal—no general number for the district. The Main Coal, 9 ft. 9 in. thick; the Low Main, 4 ft. 7 in. thick; and the Hutton Seam, 8 ft. thick; being the principal seams worked for the London and foreign markets. These three seams are in perfection at this pit.—*Gateshead Observer.*—The *Durham Advertiser*, in reference to the same event, says:—"T. H. G. Braddyll, Esq., and his partners, are likely to be amply rewarded, and the public benefitted, by the opening of an immense field of the finest coal in the world. The first of the following seams of coal being sunk through in this spacious undertaking may be interesting to geologists; in addition to several upper seams of coal that have not before been found in the district, there are the Three-quarter, the Five quarter, the Main, the Low Main, and the Hutton seams. The three latter are of first-class quality."

Fortunate Discovery.—Last week, while some men were at work in the quarry of Mr. A. H. Heathcote, at Stonesfield-hill, Oxford, they discovered the mouth of a cave, which, on being entered, proved to be one of the most wonderful discoveries ever made in a quarry of that sort, and unlocked every inquirer of the great abundance of the stone of which it is formed. The cavern is very of access, being entered by three different headings, and extends to the depth of eighty-one feet. The bottom is of the same workable stone of which the sides are composed, is rocks of the greatest size. On one side is a rock sixty feet in length, thirty-three feet high, and of a breadth we could not ascertain. The whole quarry is esteemed by all that have seen it to be one of the most wonderful productions of Nature for largeness of blocks, superiority of quality, the colour of the stone, and its extraordinary durability against all kinds of weather. It bids fair to stand superior to all other quarries in the kingdom, and also to be productive of much employment to the working class in this part of the country, for whose interest and comfort the worth proprietor has always shown himself solicitous. Mr. J. Vickers, jun., Derby dale, is in possession of some samples brought from the bottom of the cavern, which prove that there is not the slightest difference in the quality and texture of the stone, which extends three, some a compass of at least twenty acres.—*Derby Mercury.*

Subterraneous Water-Burst in Portugal.—A dreadful occurrence took place on the 27th ult., in Traces Montes during the floods. An enormous burst of subterraneous water rushed from the peak of a steep mountain (whose base is washed by a river and two streams), to the height of more than 100 varas (upwards of 300 feet), there dividing over the precipitous side of the mountain, fell with incredible force and violence into the valley beneath, sweeping everything before it—rocks, trees, walls, and houses, with large masses of cultivated soil. From a portion of a village built in the valley, it swept away 64 human beings to an irremediable interment, four of whom were instantly drowned, and two others—a youth of twelve and an old man of seventy—were borne far out of the valley into the exterior plain. On the same day, and at the same hour, a similar phenomena, attended with similar results (comprising the loss of life), occurred at an opposite point of the mountain, which was, doubtless, traversed in all directions by subterraneous possible channel.

CURRENT PRICES OF STOCKS AND SHARES.

STOCK EXCHANGE, Saturday morning, Twelve o'clock.

Consols Money, 96¼ ⅜
Ditto Account, 96¼ ⅜
New 3½ per Cents., 102⅛ ¼
Reduced 3 per Cents., 96⅞ ¾
Reduced 3½ per Cents., 101⅞ ¾
Long Annuities, 12 9-16 ⅝
Bank Stock, 178 9
Exchequer Bills, 47 49 pm.
Belgian Bonds, 5 per Cent., 104½ 5½
Brazil, 5 per Cent., 74½ 5½
Danish, 3 per Cent., 86 7
Dutch, 2½ per Cent., 55⅞ ⅝
Ditto, 5 per Cent., 100¾ ⅝
Portuguese, 5 per Cent., 40¼ ¾
Russian, 5 per Cent., 113½ 14
Spanish, Actives, 5 per Cent., 23 ¼
Ditto, 3 per Cent., 33 ¼
Chili, 6 per Cent., 98 99
Colombian, 6 per Cent., 24⅞ 5
Mexican, 5 per Cent., 29 ⅛

BANK OF ENGLAND—Quarterly Average of the Weekly Liabilities and Assets, from the 28th of January, 1843, to the 22d of April, 1843, both inclusive:—

LIABILITIES.		ASSETS.	
Circulation	£20,220,000	Securities	£23,587,000
Deposits	11,654,000	Bullion	11,190,000
	£31,873,000		£34,777,000

Downing-street, April 22.

PROMISSORY NOTES AND BULLION.—An account of the average aggregate amount of promissory notes, payable to bearer on demand, which have been in circulation in the United Kingdom, distinguishing those circulated by the Bank of England, by private banks, and by joint-stock banks, in England and Wales, by the banks in Scotland, by the Bank of Ireland, and by all other banks in Ireland, and of the average amount of bullion in the Bank of England, during the four weeks ending the 1st day of April, 1843:—ENGLAND: the Bank of England, 19,339,000*l.*; private banks, 4,716,506*l.*; joint-stock banks, 2,962,000*l.*—SCOTLAND: Chartered private, and joint-stock banks, 2,457,604*l.*—IRELAND: Bank of Ireland, 3,069,400; private and joint-stock banks, 2,019,740*l.*—Total, 34,691,236*l.* Bullion in the Bank of England, 11,439,000*l.* HENRY L. WICKHAM.

Stamps and Taxes, April 13.

The premium on gold at Paris is 13 per mille, which, at the English Mint price of 3*l.* 17*s.* 10½*d.* per ounce for standard gold, gives an exchange of 25 40, and the exchange at Paris on London at short being 25 67½, it follows that gold is 0·78 per cent. dearer in London than in Paris.

By advices from Hamburgh the price of gold is 437 per mark, which, at the English Mint price of 3*l.* 17*s.* 10½*d.* per ounce for standard gold, gives an exchange of 13 11, and the exchange at Hamburgh on London at short being 13 12, it follows that gold is 0·46 per cent. dearer in London than in Hamburgh.

[From our own correspondents.]

LATEST PRICES OF IRISH STOCKS.—3 per Cent. Consols, 96*l.* to 95⅞*l.*; 3½ Stock, 101⅛*l.*; ditto New, 1830, 101⅛*l.*; 3½ per Cent. Debentures, 93⅛*l.*; Bank Stock, 184½*l.*—Kingstown Railway, 106*l.*; Dublin and Drogheda, 5⅛*l.*—Hibernian Bank, 29½*l.*; Royal Bank, 16*l.*; Provincial Bank, 40*l.*—City of Dublin Steam Co., 160*l.*; ditto Stock, 1836, 40*l.*—Steam Ship Building Company, 49*l.*; British and Irish ditto, 80*l.*—National Insurance Company, 30½*l.*; Patriotic, 7⅜*l.*—Mining Company of Ireland, 12⅞*l.*; Wicklow Copper Mines, 12⅜*l.*

LEEDS, THURSDAY.—The transactions in the share trade have been, during the last eight days, on the most limited scale. We must confess this not a little surprises us, as we had looked for a brisk business in railway stock immediately after the April dividends were paid; we fear, however, there is a "cause" for this inactivity, which will prominently show itself before another month passes over. The new French lines still occupy considerable attention, although the reports respecting them are exceedingly contradictory. During the past week London and Birminghams have fallen from 212*l.* to 207*l.*; Great Westerns from 29*l.* pm. to 26*l.* pm., and Grand Junctions from 200*l.* to 198*l.* per share. In Manchester and Leeds we must, however, note an advance of about 1*l.* to 2*l.* per share, whilst North Midlands remain firm at 68*l.*, as well as Midland Counties at 64*l.* per share. Edinburgh and Glasgows are exceedingly steady at 49½*l.*, as also Great North of Englands at 60*l.* to 61*l.*, and this may also be said of York and North Midlands at 98*l.* There is not much inquiry for Sheffield and Rotherhams at 27*l.*, but Hull and Selbys are in great demand, and very scarce at 38½*l.*, at which no one can be surprised who sees the improvement in the amount of receipts since the spring of last year.—North Midland 68*l.*; York & N. Midland, 98*l.*; Leeds and Selby, 105*l.*; Hull and Selby, 38½*l.*; Gt. North of England, 60½*l.*; Manchester and Leeds, 82*l.*; Sheffield and Rotherham, 27*l.*; Edinburgh and Glasgow, 49½*l.*; Bristol and Exeter, 56*l.*; Cheltenham and Great Western, 20½*l.*; Northern and Eastern, 34*l.*—Leeds Banking Company, 13*l.*; Leeds and West Riding, 8½*l.*; Leeds Commercial, 3⅜*l.*; Yorkshire District, 4*l.*—Leeds and Liverpool Canal, 550*l.*; Huddersfield, 16½*l.*; Rochdale, 56*l.*—Leeds and Yorkshire Assurance Company, 12½*l.*—Leeds Old Gas Company, 735*l.*; Leeds New Gas Company, 36½*l.*—Leeds Commercial Buildings, 20*l.* R. B. WATSON & CO.

HULL, THURSDAY.—The market not quite so good this week, and prices rather lower—Hull and Selbys, and another stock or two, forming exceptions.—Birmingham & Derby, 59*l.* to 60*l.*; Edinburgh and Glasgow, 49*l.* to 50*l.*; Great North of England, 60*l.* to 61*l.*; Hull and Selby, 38½*l.*; Leeds and Selby, 104*l.* to 106*l.*; London and Birmingham, 198½*l.*; Liverpool and Manchester, 201*l.* to 202*l.*; London and Brighton 33¼*l.*; Manchester and Leeds, 82*l.* to 83*l.*; Midland Counties, 64*l.*; Newcastle and Carlisle, 78*l.*; Northern and Eastern, 34*l.*; North Midland, 68*l.*; South Eastern, 23⅞*l.*; York and North Midland, 97*l.*—Yorkshire District Bank, 4*l.* to 5*l.*; Hull Banking Company, 6*l.* to 7*l.*—Hull Dock Company, 1200*l.*; Hull Gas, 20*l.*; Hull Flax and Cotton Mills, 100*l.*; Hull Marine Insurance, 110*l.*

BRISTOL, FRIDAY.—Our market presents no feature worthy of remark, as but few transactions have been reported since my last. Prices:—Great Western Railway, 91*l.* to 92*l.*; ditto, halves, 66½*l.* to 67*l.*; ditto, fifths, 17*l.* to 17½*l.*; Bristol and Exeter, 56*l.* to 57*l.*; Bristol and Gloucester, 22¼*l.* to 23*l.*; Birmingham and Gloucester 55*l.* to 56*l.*; Birmingham and Derby, 59*l.* to 60*l.*; Cheltenham Union, 19*l.* to 20*l.*; London and Brighton, 33¼*l.* to 33¾*l.*; Eastern Counties, 10*l.* to 10½*l.*; Taff Vale, 30*l.* to 32*l.*—Bristol Gas Company, 87½*l.* to 88½*l.*; Clifton, 24*l.* to 25*l.*

GLASGOW, THURSDAY.—Ballochney Railway, 73*l.*; Dundee and Arbroath, 13½*l.*; Edinburgh and Glasgow, 50*l.*; Garnkirk and Glasgow, 50*l.*; Glasgow and Greenock, 16*l.*; Glasgow, Paisley, Kilmarnock, and Ayr, 50*l.*; Monkland and Kirkintilloch, 52*l.*; Slamannan, 20*l.*; Wishaw & Coltness, 25*l.*—Forth and Clyde Canal, 120*l.*; Bank of Scotland, 17*l.*; Royal, 107⅛*l.*; British Linen Company, 210*l.*; Commercial, 170*l.*; Glasgow Union, 9¼*l.*—North British Fire and Life Insurance, 30*l.*; Caledonian Fire and Life, 20*l.*; Scottish Marine, 1⅛*l.*—Royal Exchange, 4*l.*—Old Clyde Shipping Company, 55*l.*—Shott's Iron Company, 90*l.*—During the last three weeks our share market has been excessively flat, and the business done extremely limited. Prices are nearly the same as formerly. Money continues abundant. The practice of lending sums on the security of shares, for certain fixed periods, has of late become of frequent occurrence.—The bank stocks sell slowly at the quotations.—Of the shares of the insurance companies there are few offering; those of the marine companies are held more firmly, the unfavourable season for sea risks being now over.—There have been some sales of Glasgow Water stock at 60*l.*, and of Forth and Clyde Canal at 120*l.*—Monkland Canal is wanted at 200*l.*—For the stock of the mineral railways there has been some inquiry and several transactions, the prices of these, as compared with their returns, being moderate. Edinburgh and Glasgow and Ayrshire Railway shares sell freely.

EDINBURGH, THURSDAY.—Edinburgh and Glasgow Railway, 50*l.*; Dalkeith and Edinburgh, 15*l.*; Glasgow and Greenock, 15*l.*; Glasgow and Garnkirk, 50*l.*; Glasgow and Ayrshire, 50*l.*; Wishaw and Coltness, 25*l.*; Dundee and Arbroath, 13*l.*; Arbroath and Forfar, 23*l.*—Bank of Scotland, 172½*l.*; Royal Bank, 165½*l.*; British Linen Company, 210*l.*; Commercial, 162½*l.*; National, 14½*l.*; Edinburgh and Leith, 6½*l.*; Glasgow Union, 9⅛*l.*; Western Bank of Scotland, 70½*l.*; City of Glasgow, 8⅞*l.*—Caledonian Fire and Life Insurance, 2*l.*; Hercules Fire, 12½*l.*; North British Fire and Life, 30½*l.*; Standard Life, 4⅞*l.*—Edinburgh Gas, 15*l.*; Edinburgh and Leith Gas, 5*l.*

LIVERPOOL, FRIDAY.—Chester and Birkenhead Railway, 30½*l.*; Eastern Counties, 10½*l.*; Edinburgh and Glasgow, 49½*l.*; Grand Junction, 198*l.*; Great Western, 90½*l.*; Great North of England, 61*l.*; Lancaster and Preston, 33⅞*l.*; Liverpool and Manchester, 201*l.*; London and Birmingham, 208*l.*; London and South Western, 63½*l.*; London and Brighton, 33⅞*l.*; Manchester, Bolton, and Bury, 54½*l.*; Manchester and Birmingham, 23½*l.*; Manchester and Leeds, 82*l.*; Midland Counties, 64*l.*; North Midland, 68*l.*; North Union, 78*l.*; Paris and Rouen, 20⅛*l.*; South Eastern, 23⅞*l.*; York and North Midland, 97*l.*—Borough Bank, 14*l.*; Bank of Liverpool, 20½*l.*; Commercial, 10*l.*; Liverpool Banking Company, 9*l.*; Manchester and Liverpool District, 8½*l.*; North and South Wales, 5*l.*; Royal, 40½*l.*; Union, 14½*l.*—Fire and Life Assurance, 6½*l.*; Marine Assurance, 6½*l.*—Anderton Carrying Company, 4½*l.*—Pohlmann's Bitumen Company, ½*l.*—Gas Light Company, [illegible]; New Gas and Coke Company, [illegible]—Harrington Dock, [illegible]—Bootle Water Works, [illegible]; Liverpool and Harrington Water Works, [illegible]

BIRMINGHAM, THURSDAY.—London and Birmingham Railway, 207*l.* to 208*l.*; London and Brighton, 33½*l.*; London and South Western, 63½*l.* to 64½*l.*; Gt. Western, 90*l.* to 91*l.*; Birmingham and Derby, 59*l.* to 60*l.*; Birmingham and Gloucester, 55*l.* to 57*l.*; Manchester and Leeds, 81*l.* to 82*l.*; Edinburgh and Glasgow, 49½*l.* to 50*l.*—Birmingham Banking Company, 18½*l.*; District, 6½*l.*; Midland, 31½*l.*—Birmingham Canal, 19½*l.*; Birmingham and Worcester, [illegible]; Birmingham Water Works, [illegible]; Birmingham Gas, [illegible]; Birmingham and Staffordshire, [illegible]; Old Union Mill, 4⅞*l.*; New ditto, 5⅛*l.*

THE LONDON GAZETTE—BANKRUPTS.

TUESDAY.—Wm. Campling, Long Melford, Suffolk, innkeeper—J. Vialls, St. Paul's Church yard, merchant—A. Stocken, Halkin street, Belgrave square, coach maker—W. Hill, Newcastle upon Tyne, wine merchant—J. Deakin, Dudley, Worcestershire, grocer—H. Cross, Frome, [illegible] manufacturer—E. Beck, Tiverton, Devonshire, [illegible]

FRIDAY.—[illegible]

THE SULPHUR TRADE.

[illegible]

SALE OF COPPER ORES IN CORNWALL.

Sampled April 12, and sold at Andrew's Hotel, Redruth, April 27.

Mines.	Tons.	Price.	Purchasers.	Mines.	Tons.	Price.	Purchasers.
United M.	131	£3 16 6	Nevill & Co.	Trethellan	26½	£4 10 6	Mines Royal
ditto	120	4 14 0	—	ditto	26½	4 10 6	English Co.
ditto	124	4 1 6	Vivians.	ditto	32	7 16 6	Freemans.
ditto	116	4 15 0	Nevill & Co.	Hallenbea.	105	4 3 6	Williams.
ditto	109	3 15 6	—	ditto	72	5 0 6	Mines Royal
ditto	51½	6 11 6	English Co.	ditto	65	1 15 6	English Co.
ditto	51½	6 11 6	Freemans.	ditto	29	4 2 6	—
ditto	95	5 3 0	English Co.	ditto	29	4 2 6	Mines Royal
ditto	23½	5 7 0	—	ditto	29	4 2 6	Freemans.
ditto	23½	5 7 0	Mines Royal	Treasvean	111	4 18 6	Vivians.
ditto	23½	5 7 0	Freemans.	ditto	24½	4 12 0	—
ditto	23½	5 7 0	Williams.	ditto	24½	4 12 0	English Co.
ditto	99	4 16 0	English Co.	ditto	24½	4 12 0	Williams.
ditto	19	5 15 0	—	ditto	50	4 18 0	—
ditto	30	5 15 0	Freemans.	N. Downs	85	6 5 6	English Co.
ditto	26	6 1 6	—	ditto	54	5 16 6	—
ditto	26	6 1 6	English Co.	ditto	31	6 8 0	Freemans.
S. Caradon	161	5 12 6	Williams.	ditto	28	4 14 0	Vivians.
ditto	114	5 16 6	Nevill & Co.	ditto	23	5 19 0	—
ditto	94	6 15 6	Williams.	Fowey C.	120	5 8 0	Williams.
ditto	62	4 3 6	Mines Royal	ditto	30½	7 7 6	Vivians.
ditto	17	5 9 6	—	ditto	30½	7 7 6	Freemans.
ditto	17	5 9 0	English Co.	ditto	30½	7 7 6	Nevill & Co.
ditto	17	5 9 0	Williams.	Treleigh C.	69	4 9 0	Williams.
ditto	46	6 1 6	P. Grenfells.	ditto	60	3 5 0	—
Trethellan	68	4 19 6	Williams.	Dennis's ore	28	2 16 6	Freemans.
ditto	67	3 5 6	—	Wh. Busy	17	3 5 0	English Co.
ditto	66	1 18 6	Vivians.	Wh. Uny	15	4 13 0	Nevill & Co.
ditto	60	5 6 6	—	ditto	1	40 3 0	—

TOTAL PRODUCE.

United Mines	1144	£5574 7 0	Fowey Consols	211	£1319 2 6
South Caradon	551	3049 5 0	Treleigh Consols	129	499 12 0
Trethellan	346	1494 10 0	Dennis's ore	28	79 2 0
Hallenbeagle	300	1169 19 0	Wh. Busy	17	55 5 0
Treasvean	243	1171 11 6	Wh. Uny	16	119 18 0
North Downs	224	1322 16 6			

Average standard, 110*l.* 10*s.*—Average produce, 7.—Average price, 4*l.* 15*s.* 6*d.*—Quantity of ore, 3109 tons.—Quantity of fine copper, 222 tons 18 cwt.—Amount of money, 15,862*l.* 8*s.* 6*d.*—Average standard of last sale, 105*l.* 8*s.*—Average produce 8.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal Company	223	£1050 11 9
English Copper Company	642½	3270 2 1
Vivian and Sons	486½	2101 9 4
Freeman and Co.	294½	1761 18 8
P. Grenfell and Sons	46	279 9 0
Sims, Willyams, Nevill, Druce, and Co.	646½	3080 8 8
Williams, Foster, and Co.	868½	4309 11 1
Total	3109	£15,862 8 6

Copper ores for sale on Thursday next, at Tyack's Hotel, Camborne.—Mines and Parcels.—Consols Mines, 512; North Roskear, 661; Dolcoath, 400; East Wheal Crofty, 327; South Wheal Basset, 284; Par Consols, 281; United Hills, 280; Fowey Consols, 251; East Pool, 229; South Roskear, &c., 218; Wheal Trewavas, 214; Tretoil, 115; Wheal Harriet, 90; Tregullan, 54; Wheal Clifford, 19; Tregudra, 1.—Total, 4682 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—Wheal Friendship, 406; Fowey Consols, 314; Botallack, 261; Levant, 226; Wheal Darlington, 200; Wheal St. Andrew, 192; Wheal Buller, 137; Providence Mines, 96; Wheal Curtis, 50; Brovadnack, 30; Treleaw, 7.—Total, 1919 tons.

SALE OF COPPER ORES AT SWANSEA.

Sampled April 5, and sold on the 26th April.

Mines	Tons	Produce	Stand.	Price	Mines	Tons	Produce	Stand.	Price
Santiago	110	16¾	93¼	13 0 0	Cobre	94	12¾	96½	9 11 6
ditto	109	16¾	93¼	13 0 6	ditto	69	12¾	96½	9 11 6
ditto	96	16¾	93¼	13 0 0	ditto	32	19¾	91	13 14 6
ditto	97	24¾	89¾	19 15 6	ditto	37	12¾	96½	9 11 6
ditto	79	25¾	90½	20 3 0	ditto	34	22¾	90½	18 2 0
ditto	71	24½	90	19 15 6	ditto	16	14½	90	11 5 6
ditto	57	24¾	89½	19 12 6	Bacuranao	61	16¾	93	12 14 6
ditto	54	23¾	90½	18 12 0	ditto	94	15¾	94½	12 7 0
Chili	100	17¾	90	14 5 6	ditto	75	14	96½	11 10 6
ditto	96	20¾	91	16 6 6	ditto	74	16¼	91½	12 16 0
ditto	90	17¾	92¾	14 4 0	Cuba	60	23¼	89½	19 15 0
ditto	98	17¾	93½	14 4 0	ditto	57	23	91	18 18 0
ditto	37	19¾	91½	15 6 6	ditto	29	49½	90½	40 0 6
ditto	2	65	90	52 19 6	Llandidno	94	4¼	122¾	3 0 0
ditto	60	31½	90½	25 12 6	Ivy Bing	21	3¼	159	1 0 0
ditto	80	30¾	89½	24 19 0	ditto	17	3¾	125½	2 6 0
ditto	90	17¾	93½	14 1 0	Cristopher	2	2	165	1 1 0

Total tons, 2143.—Total amount, £31,303 18 0.

TOTAL PRODUCE.

Santiago	673	£11169 15 0	Cuba	145	£3341 12 6
Chili	619	10197 17 0	Llandidno	94	282 0 0
Cobre	282	2687 5 0	Ivy Bing	38	60 2 0
Bacuranao	313	3063 6 6	Cristopher	2	2 2 0

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
English Copper Company	433½	£5550 12 9
Freeman and Co.	108½	1549 0 0
Grenfell and Sons	160	2041 11 0
Sims, Willyams, Neville, Druce, and Co.	147½	2491 1 3
Vivian and Sons	658½	9174 5 0
Williams, Foster, and Co.	574	10080 7 6
Mines Royal Company	57	1118 12 6
Total	2143	£31,303 18 0

Copper ores for sale May 10.—Knockmahon 133, ditto 118, ditto 117, ditto 111, ditto 105, ditto 104, ditto 103, ditto 100, ditto 91, ditto 83, ditto 81, ditto 80, ditto 78, ditto 75, ditto 71, ditto 56, ditto 52, ditto 53, ditto 50, ditto 49, ditto 34, ditto 33—Santiago 99, ditto 98, ditto 97, ditto 95, ditto 33—Bearhaven 124, ditto 115, ditto 99, ditto 88—Cobre 88, ditto 79, ditto 50, ditto 49, ditto 71, ditto 45, ditto 4—Chili 99, ditto 98, ditto 89, ditto 87, ditto 80—Copiapo 81, ditto 75, ditto 71, ditto 30—Ballymurtagh 90, ditto 88, ditto 84, ditto 83, ditto 87, ditto 90, ditto 17—Connorree 74, ditto 65, ditto 13—Cuba 75, ditto 57—Lackamore 34, ditto 30—Dreenaira 81—Llwyddu, 59, ditto 11—Laxey 19—Cronebane 16—Molland 3, ditto 1—Valparaiso 100—Total, 4431 tons.

CURRENT PRICES OF MATERIALS IN CORNWALL,

AS SUPPLIED AT THE PRINCIPAL MINES.

	s.	d.		s.	d.
Common iron, per cwt.	5s	0d	Barrow bends	7s	0d
Half-inch square	7	0	Sheet lead	24	0
Five-eighth ditto	7	0	White ground lead	25	0
Best tough whim chain	30	0	Red lead	18	0
Boiler plates	9	6	Tallow	50	0
White kibble ditto	16	0	Candles, per dozen lbs.	5	6
Hoop iron	9	6	Gunpowder, per 100 lbs.	40	0
Best rolled iron	9	6	Leather bends, per lb.	1	10
Charcoal iron	10	6	Ropes	36	0
Inch ditto	11	6	Flat ropes	38	0
Half-inch ditto	12	6	Hemp	40	0
Blistered steel	32	0	White yarn, per cwt.	38	0
M ⅓ steel	32	0	White rope	42	0
Nail rods	11	0	Engine shag	0	6
Miners' shovels	30	0	Stockholm tar	20	0
Ditto steel pointed	40	0	Linseed oil, per gallon	3	0
Board nails	14	0	Rape ditto	4	4
Half board ditto	16	0	Brass-wire sieves	40	0
Hatch ditto	18	0	Iron wire ditto	20	0
Half hatch ditto	20	0	Iron-wire work, per foot	1	4
2s. nails	14	0	Machine bottoms	18	0
Five-inch spike ditto	14	0	Balk	1	6
Casing ditto	15	0	Birch, per foot	1	4
20 lbs. nails	16	0	Fine	45	0
15 ditto	16	0	Shovel hilts	0	0
Coals, per ton, at quay	0	0	Pick hilts	1	4

LATEST CURRENT PRICES OF METALS.

LONDON, APRIL 28, 1843.

[illegible]

EXPORTATION OF THE PRECIOUS METALS.—The following are the official returns of the exports of gold and silver from the port of London for the week ending Saturday last:—

Gold coin to New York	1,000	ounces.
Silver bars to Rotterdam	10,000	—
Silver coin to Rotterdam	82,000	—
— Mexico	20,000	—
— British West Indies	1,000	—

[illegible]

PRICES OF MINING SHARES.

Several interesting notices connected with mining will be found in our present Number. The general character of, and the prospects held out by, the prospectuses of two new mining companies are given under the head "New Companies,"—viz., the Cornwall County and General Tin and Copper Mining Company, and the Cullentragh Park Lead Mining Company. The re-opening of the Pen Park Hole, near Bristol, which has been undertaken by a Cornish company of adventurers, to work for lead, will also be watched with interest. By a short communication from the Brazils, it will be seen that the Imperial Brazilian Mines are again improving, and that the directors purpose proposing a dividend out of profits at the next meeting. Some interesting tabular matter will be seen relating to the produce of the Cornish mines, which shows the gradual improvement which has taken place during the past year.

BRITISH MINES.

Shares.	Company.	Paid.	Price
300	Anglesey	5	—
4,000	Bedford	1½	3½
100	Botallack	175	1000
20,000	British Iron	70	—
8,000	Blaenavon	50	—
120	Brewer	—	160
70	Budnick	—	15
1,000	Carn Brea	15	150
5,000	Con. Tretoil Mining Ass.	4	2
2,000	Cornubian Lead Co.	2	3½
512	Cook's Kitchen	—	50
112	Charlestown	—	250
128	Cregg Braws	40	—
128	Cosheen	15	150
10,000	Durham County Coal Co.	37	—
128	East Pool	—	250
100	Great Consols	97	600
10,000	Hibernian	12½	—
1,000	Holmbush	14	45
2,000	Isle of Sark (Guernsey)	15	—
80	Levant	—	450
20,000	Mining Co. of Ireland	7	12⅞
120	Mostyn Mines	100	—
70	North Roskear	—	300
3,000	Polberon Consols	10	—
128	Penstruthal	37	150
10,000	Rhymney Iron	50	—
1,000	Roaring Water	½	8
128	South Caradon	—	800
800	South Towan	10	1½
64	South Wheal Basset	—	300
37	Spearn Moor	70	—
155	Tregolian	—	4
4,000	Treleigh Consols	5	2½
6,000	Tamar Consols	3	9½
6,000	Tincroft	7	16½
128	Trewavas	—	130

BRITISH MINES—*continued.*

Shares.	Company.	Paid.	Price
120	Treviskey and Barrier	—	310
96	Treasvean	—	1200
120	Trethellan	—	240
4,000	United Hills	5	5½
6,000	Wicklow Copper	5	12½
3,845	West Wheal Jewel	10½	17
120	West Trethellan	5	90
50	Wheal Vor	300	—
1,000	Wheal Bandon	½	6
1,000	West Carbery	½	12½

FOREIGN MINES.

Shares.	Company.	Paid.	Price
5,000	Alten Mining Company	13½	4½
10,000	Anglo Mexican Co.	100	3½
3,374	Do. Subscription	25	3
2,000	Bolanos	150	4
	Ditto Scrip	15	4½
10,000	Brazilian Imperial	21	8
10,000	Bolivar	20	—
10,000	Ditto Scrip	10	2
10,000	Catalbranca—Brazilian Company	6½	4 5
12,000	Cobre Copper Company	40	23
8,500	Colombian Co. regis.	55	1
10,000	Copiapo Mining Co.	13½	9
20,000	General Mining Assn.	20	—
5,351	Mexican Company	58½	—
12,000	Mocnalnas and Cocaes	25	4½
29,230	El del Monte, regis. / Do. unregistered	29½	3½ / 3
	Ditto Loan Notes	150	125
7,000	Royal Santiago	10	24
11,000	St. John d'el Rey	15	6
40,000	United Mexican	40	2½
	Black Scrip, addl. capital	5	3
	Red New Scrip	1½	4

RAILWAY SHARE LIST AND TRAFFIC RETURNS.

Line.	Entire Lgth.	Now Open.	Present actual cost.	Pd. on Share.	Val. of Share.	Last week's returns.
Arbroath and Forfar Railway	15	15	£ 136,706	25	22	£141 7 10
Birmingham & Derby Junc.	48¾	48¾	1,149,035	100	80½	1337 16 11
Birmingham and Gloucester	55	55	1,460,651	100	56	1739 7 6
Brandling Junction	25	25	434,824	50	—	795 11 3
Chester and Birkenhead	14½	14½	538,424	50	30	493 10 6
Dublin and Kingstown	6	6	349,262	100	107	704 13 11
Dundee and Arbroath	16¾	16¾	143,252	25	25	188 1 2
Durham and Sunderland	16	16	266,132	56¼	18	399 3 10
Eastern Counties*	126	51	2,496,966	23	10	2304 4 2
Edinburgh and Glasgow	46	46	1,213,337	50	49¾	3914 18 8
Glasgow and Ayr	51	40	986,594	50	40	1079 8 1
Glasgow and Paisley Joint	22¾	22¾	730,289	25	25	697 11 3
Gd. Junc. & Chester & Crewe	115½	115½	2,316,536	100	201½	6956 16 9
Great North of England	74	45	1,391,671	100	60¾	1467 7 8
Great Western	118¼	118¼	6,440,623	65	91	13728 4 8
Hayle	18	18	125,000	100	—	—
Hull and Selby	31	31	643,986	50	38½	1093 13 9
Lancaster & Preston Junc.	20¼	20¼	433,350	47	27½	—
Liverpool and Manchester	31	31	1,313,255	100	200	3793 16 3
London and Birmingham	112½	112½	5,922,812	100	207½	15659 13 9
London and Blackwall	3¾	3¾	1,325,275	16¾	5¾	682 2 7
London and Brighton	56	56	2,399,645	50	33¾	3455 12 5
London and Croydon	10¼	10¼	626,371	13½	10½	308 14 7½
London and Greenwich	3¾	3¾	1,019,636	12½	4½	773 15 9
London and South Western	92¾	92¾	2,386,934	39¼	63¼	6169 1 4½
Manchester, Bolton, & Bury	10	10	777,357	95	56	673 18 6½
Manchester & Birmingham	40	31	1,626,405	40	22¾	3037 18 9
Manchester and Leeds	50	50	3,060,266	70	83	4743 13 11
Midland Counties	57	57	1,696,148	100	65	2544 9 8
Newcastle and Carlisle	61	61	1,061,380	100	78	1254 5 1
Newcastle and N. Shields	7	7	212,679	45	44	360 11 4
Northern and Eastern†	32¼	32¼	909,667	45	33¼	1613 5 1
North Midland	72¾	72¾	3,322,351	100	68	4123 5 2
North Union‡	22	22	612,929	75	72½	985 18 7
Preston and Wyre	19	19	317,000	50	36	179 6 7
Sheffield and Manchester	40	11	512,864	82½	32¼	323 5 4
South-Eastern	67	66	1,290,367	50	23½	2053 17 10
Taff Vale	30	30	530,723	100	—	696 15 4
Ulster	25	25	344,373	25	—	397 4 3
York and North Midland	27	27	461,031	50	97	1296 3 4

THAMES TUNNEL.

The number of passengers who passed through the Tunnel in the week ending April 22, was 10,450, yielding a revenue of £129 6*s.* 4*d.*

JOINT-STOCK BANKS.

Shares.	Company.	Paid.	Price	Shares.	Company.	Paid.	Price
15,000	Australasia	40	57½	20,000	Liverpool Borough	10	14½
20,000	Birmingham	10	19	20,000	Ditto Bank of	12½	20
20,000	British N. American	40	45	12,000	Ditto Banking Co.	10	9½
10,000	Cheltenh. & Gloucesh.	5	17½	10,000	Ditto Commercial	10	10
100,000	Commercial of Eng.	5	—	2,000	Ditto Royal	100	40½
1,000	Commer. of London	200	165	100,000	Manch. & Liver. Dis.	15	10
20,000	Colonial	25	15½	100,000	Manchester	10	4½
50,000	East of England	10	7½	30,000	Manchester & Salford	10	10
10,000	Gloucestershire	10	20	20,000	National of Ireland	17½	14½
4,000	Ionian	25	24	10,000	Natl. Provl. England	35	35½
10,000	Leeds Banking Co.	15	16	60,000	North & South Wales	10	5
20,000	Leeds & West Riding	6½	8½	20,000	Provincial of Ireland	25	44½
30,000	London & Westminst.	20	26½	20,000	South Lancashire	7½	6½
60,000	London Joint-Stock	10	12½	20,000	W. of Eng. & S. Wales D.	12½	12
20,000	London and County	10	15	20,000	Union of Australia	25	24
10,000	Liverpool Albion	25	18½	60,000	Union of London	10	10

MISCELLANEOUS.

Shares.	Company.	Paid.	Price	Shares.	Company.	Paid.	Price
10,000	Anglo-Mexican Mint	10	13	2,100	Hungerford Market	100	31½
10,000	Anti Dry-Rot	16½	2	1,000	London Corn Exch.	37½	25
10,000	Asphalte (Claridge)	4	4	6,000	London Caoutchouc	12½	15
10,000	Assam Tea Company	17½	4½	5,000	London Cemetery	20	18
10,000	Austral. Agricultural	26½	26	8,000	Lon. Rever. Int. Soc.	10	6
3,673	Australian Trust Co.	20	26½	15,000	Met. Pat. Wood Paving	1	2
12,500	Bitumen Bastenne	2½	½	20,000	Mexican & S. American	7	1
10,000	Ditto Polonceau	2	½	—	New Brunswick (Ld.)	60	15
6,000	Brit. Amer. Land Co.	33½	8	—	Peninsular & Oriental	50	40
4,000	Brit. Loan & Dis. Inst.	3½	3½	3,267	Rever. Int. Society	100	106
6,000	Brit. Rock & Pat. Salt.	20	12	15,000	Royal Mail Steam-Pct.	50	17
6,915	Canada Land Co.	32½	41½	3,000	Shott's Iron Foundry	40	56
3,000	E. C. of Con. Amr. Deb.	20	21	14,400	South Australian	50	17
3,000	Droitwich Patent Salt	20	12½	5,000	Ship Owners' Towing	7½	15
2,700	Equitable Rever. Soc.	45	61	4,000	Thames Tunnel	50	9
20,000	Gen. Steam Navig.	14	27½	10,000	Van Diemen's Land	18½	6
5,000	Gen. Rever. Int. Soc.	100	90	4,000	W. Lon. & Westmr. Cem.	—	25

COAL MARKET, LONDON.

MONDAY.—Prices of coals per ton at the close of the market:—Buddle's West Hartley 15—Bishop's Main 14—Chester Main 15—Davison's West Hartley 15 6—Hastling's West Hartley 15 6—Holywell Main 16 3—Hepburn Main 16 6—New Tanfield 14 6—Ord's Redheugh 13—Tanfield Moor 17 6—Townley 14 6—Wylam 14 9—Wall's End Bewicke 16 6—Gosforth 15 6—Hartley 16 9—Hilda 15 6—Killingworth 17 6—Riddell's 16—Braddyll's Hetton 20 9—Haswell 20 9—Hetton 20 6—Lambton 20 6—Stewart's 20 9—Caradoc 20 6—Hartlepool 20 6—Hamilton 16—Brown's Deanery 18 6—Clarence Hetton 18 9—Tees 20—Hartley 15 6—Stewart's West Hartley Netherton 15 6—Powell's Duffryn Steam 15.—Ships arrived, 33.

WEDNESDAY.—Acorn's Main 15 6—Buddle's West Hartley 15—Davison's 15 6—Hastling's 15 6—Holywell Main 16 3—New Tanfield 14 6—Ord's Redheugh 13—Tanfield Moor 17 6—Townley 14 6—West Hartley 15 6—West Holywell 16—Wylam 15—Cassop 18 6—Gibson 17—Hilda 16 6—Killingworth 17—Braddyll's Hetton 20 9—Hetton 20 3 to 20 6—Lambton 20 3—Morrison 16 6—Russell's Hetton 20—Stewart's 20 6—Caradoc 20 3—Cassop 20 3—Hamilton 16—Kellow 20 6—Adelaide [illegible]

FRIDAY.—[illegible]

[illegible]